CONSTRUCTION ENGINEERING RESEARCH LAB (ARMY) CHAMPAI--ETC F/G 13/13 AD-A040 758 EFFECTIVE USE OF SYSTEMS BUILDING TECHNOLOGY: OPEN SYSTEMS CATA--ETC(U) T A KENNEY UNCLASSIFIED CERL-SR-D-73-VOL-3 NL 1 OF 1 AD A040758 الله الله RND

construction engineering **laboratory** research

special report D-73

june 1977

effective use of systems building technology

thomas a. kenney

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Information

approved for public release; distribution unlimited.

building products **Jystems** volume III: atalog rpen

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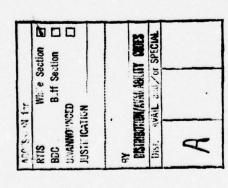
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	20. ABSTRACT (Continue on roverse side if necessary and identity by block number) This Building Products Information is intended advanced building technology and methods. This doct connection with its companion volumes of Effective to nology: Open Systems Catalog-Vol I, Open Systems and Vol II, Prototype Performance Specifications, by	to be an aid in the use of ument can best be utilized in Use of Systems Building Tech-Guide by Tibor D. Csizmadia,
	This document includes a Data Summary developed open systems projects and industrialized subsystem in	

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foreword



This report was prepared for the Directorate of Military Construction, Monitor was W. Johnson. This is the final report from this work unit. Industrialized Building"; and 007, "Design Documentation Procedures." Facilities"; Task T2, "Development of Industrialized Construction for 'Development of Industrialized Construction for Military Facilities"; Task Ol, "Guides on Using Industrialized Buildings for Military Con-Work in this area is continuing under Project 4A762731AT41, "Design, Construction, and Operation and Maintenance Technology for Military struction"; Work Unit 002, "Open Systems Guide." The OCE Technical Military Facilities"; Work Units 006, "Computerized Information on Office of the Chief of Engineers (OCE) under Project 4A762719AT02,

The report was prepared by the Master Planning and Systems Building Branch Branch (HPM), Habitability and Planning Division (HP) of the U.S. Army Gordon Bagby is Chief of HPM and Dr. Robert M. Dinnat is Chief of HP. Contributing CERL personnel were Dale A. Bryant, Michael G. Carroll, Tibor D. Csizmadia, Thomas A. Kenney, and Richard L. Schneider of HPM. Construction Engineering Research Laboratory (CERL).

COL J. E. Hays is Commander and Director of CERL, and Dr. L. R. Shaffer is Technical Director.

Conforto

DD FORM 1473 FOREWORD

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INTRODUCTION Background Purpose Problems Further Stages Organization	DATA SUMMARY Product Data Structural Interior Partitions Heating, Ventilating, and Cooling Lighting/Ceiling Electric/Electronic Compatibility	APPENDICES A: Questionnaire B: Listing of Nonrespondent Manufacturers or Those with Insufficient Data
3:10	3:20	

ntroduction

Background:

trends, problems, and necessities suggest that in a significant number of fied before the selection of the construction operators, i.e., construc-Current Traditionally, buildings have been fully designed, detailed, and specineered, industrialized subsystems. Use of these subsystems is now pos-One alternative is the open systems approach, which utilizes pre-engisible on a competitive basis for public and private building projects. cases, alternatives to the traditional approach should be considered tion manager, contractors, subcontractors, manufacturers, etc.

Although these building subsystems may be used in the traditional approach to project design and construction, they are most effectively used as part of the systems approach. Properly used, the systems approach provides means for tapping the creativity and judgment of many relevant technical and professional disciplines.

A number of important building clients use the industrialized subsystems ment has been made. Application of these developments and benefits to consumption and estimated life-cycle costs, through subsystem developto reduce project time and costs and to increase a facility's quality and flexibility. In addition, recent progress toward reduced energy

Building Systems Planning Manual, Building Systems Information Clearinghouse, Special Report Number Three (BSIC/EFL, Menlo Park, California, 1971).

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Purpose:

Problems:

and methods.

The purpose of this catalog and its associated documents² is to provide

government projects will represent a considerable challenge.

information to facilitate effective use of advanced building products

projects and industrialized subsystem manufacturers. The catalog is

This "catalog" summarizes and analyzes a survey of selected open systems

still being developed and continuous development of new materials will

prevent it from ever being totally complete. Both material organization

and content must be refined and updated as new experience

and information become available; hopefully, feedback from this

"prototype" catalog will greatly enhance this process.

This prototype catalog may be regarded as a representative cross-section

of the subsystem industry. Many of the leads have been obtained either

by analyzing completed building projects or by surveying recognized

Open Systems Catalog--Vol I, Open Systems Guide, Special Report

Engineering Research Laboratory [CERL], 1977).

D-73 (U.S. Army Construction

²Tibor D. Csizmadia, Effective Use

of Systems Building Technology:

information in this catalog can be fully reliable only if it is used systems building experts in the United States and Canada. However,

continually and if new material is constantly verified.

Use of Systems Building Technology: totype Performance Specifications, Special Report D-73 (CERL, 1977). Open Systems Catalog--Vol II, Pro-Richard L. Schneider, Effective

notice; informational items obtained from surveys carry no obligations The products contained herein can be modified or discontinued without

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information purposes, and use of any item in it should be carefully considered in terms of its context. It is recommended that manufacturers be contacted for verification of and addition to the product data. and represent no contractual agreements. The catalog is only for

pansion, field testing, and revision of this "information" catalog. The first of these is now proposed as "Upgrade 2" or a "Catalog of Certified Products." A second proposal is "Upgrade 3," which may be a catalog of will be developed through competitive bidding, which will necessitate Further stages or "upgrades" of the catalog are envisioned after expre-purchased or pre-contracted products. The proposed "Upgrade 3" certain guarantees from the client and from the manufacturer.

Further Stages:

The present catalog contains a Data Summary which has the necessary product data and compatibility information, summarized from a Computerized Data Bank, in a working format for easy reference and use. The Computerized Data Bank was developed from a survey of industrialized subsystem manufacturers. All information contained in the Computerized Data Bank is the response of the manufacturers to the questionnaire. (Appendix A)

The Data Summary is divided into sections according to subsystems. A subsystem is a coordinated, preengineered

Organization:

*Computerized Information on Industrialized Building Systems, a CERL-maintained data 3:10 Introduction 03

subsystem; the interior partitions or interior space division subsystem; major contributor to the building's form and/or function. The five subsystems chosen for inclusion in this first edition are the structural lighting/ceiling subsystem; and the electric/electronic distribution assemblage of components forming a package that can be readily manuthe mechanical, or heating, ventilating, and cooling subsystem; the factured, shipped to, and installed in a total building system. subsystem.

In the Data Summary, an alphabetical listing of manufacturers, which includes address, contact, phone number, and product(s) precedes each subsystem section. Appendix B provides a subsystem listing of manufacturers not included in this edition.

The Computerized Data Bank contains information about each subsystem manuexperience, product data, and compatibility information. The profile contains information about services and products provided, approval by codes distance of the product. Information about the manufacturer's experience includes government organizations which have used the product(s), whether facturer and his product(s), which includes the manufacturer's profile, and standards, applicable building types, and the economical delivery the product is approved for FHA or VA insurance, and a listing of

minimum dimensions, capacities, fire protection ratings, acoustical inmation provides subsystem general information, assembly type, maximum/ formation, etc. Compatibility information provides data concerning a projects in which the product(s) have been used. Product data inforsubsystem's compatibility with the subsystems of other manufacturers. The Data Summary is a graphical presentation of product data information tem, each manufacturer's product data with that of other manufacturers. In addition, the data Summary includes a set of charts which indicates from the Computerized Data Bank. A set of charts compares, by subsysthe various levels of compatibility between subsystem manufacturers.

the open systems approach to the building process. Information included should be used in conjunction with other associated documents³ designed This Building Products Information Catalog should be used as an aid to to facilitate effective use of advanced building products and methods.

³Tibor D. Csizmadia, Effective Use of Systems Building Technology: Open Systems Catalog--Vol I, Open Systems Guide, Special Report D-73 (CERL, 1977).

³Richard L. Schneider, Effective Use of Systems Building Technology: Open Systems Catalog--Vol II, Prototype Performance Specifications, Special Report D-73 (CERL, 1977).

Towns of the

Product Data:

ized Data Bank. 4 An alphabetical listing of the manufacturer's address, manufacturer's profile/experience must be obtained from the Computer-The following set of charts includes product data summaries from the contact, phone number, and product(s) precedes each subsystem chart. Computerized Data Bank, by subsystems. Other information about the

The data are self-explanatory, with the exception of the performance ratings and tests used in the Fire Protection and Acoustics sections. These are determined as follows:

FIRE PROTECTION RATINGS

Fire Resistance is given in terms of hours, as specified by NFPA No. 251.

Flame Spread is given in numbers relating to the standard, select grade red-oak flooring = 100 tested in accordance with NFPA No. 255.

Smoke Development is given in terms of optical density or light absorption, tested in accordance with NFPA No. 255.

ACOUSTICAL RATINGS

STC Rating is the sound transmission classification in db as determined by ASTM E90-61T.

4Thomas A. Kenney, Computerized Information on Industrialized Building Systems, Draft Users Manual (CERL, 1977).

PERFORMANCE TESTS

...conducted by outside agency...is if the subsystem has been tested by an independent testing agency, such as U.L., NBS, or ASTM, or if the product is of a conventional construction for which standard test results are known.

...conducted in-house...is if the manufacturer has conducted formal performance tests within his* own organization, or if the manufacturers of the components that he uses have conducted similar tests.

...planned or desired...is if the manufacturer desires to have his product tested or plans to have it tested.

...not planned...is if testing is not required or applicable or not economically feasible at this time.

PRODUCT	Donald V. Cartledge BELLCORE Douglas Snyder BELLWOOD (813) 355-7166 FTS: (904) 791-2011	Wright Lerch 837-1851 (215) 597-3311	Hettleman HAMBRO. D-500 COMPOSITE FLOOR/ROOF 338-0800 (301) 597-3311	011man 846-2500 (313) 226-6000 ·	Emanuel A. Coronis, Jr. TRUSSFRAMES (609) 261-2200 FTS: (201) 645-3000	Townsend Jones 465-3595 (515) 284-4000	No system identified schamps
MANUFACTURER	Bellaire Products, Inc. Donald V. Cart P.O. Drawer C Tellevast, FL 33588 FTS: (904) 79	Bethlehem Contracting Co. J. A. Wrigh Route 512, P.O. Box 40 Bath, PA 18014 FTS: (215)	Canam Hambro Systems, Inc. Stuart Hettleman 114 E. 25th Street Steve Weissberg (301) 338-0800 FTS: (301) 597-	C/O/A Corp. 9305 Michigan Ave. (313) 846 Detroit, MI 48211 FTS: (31	Coronis Building Systems, Inc. Emanuel A. Corolostown Rd. (609) 261-2200 Columbus, NJ 08022 FTS: (201) 64	Cuckler Steel Span Co. James Towns. P.O. Box 346 Monticello, IA 52310 FTS: (515)	Harter Concrete Products, Inc. Owen Donaldson 1628 W. Main St. Lee Deschamps Oblighem City Or 73106

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33310 1050 N.E. Fifth Terrace Houdaille-Duval-Wright Fort Lauderdale, FL P.O. Box 8068

FTS:

CONTACT

unyan (305) 764-2000 (305) 735-6011 Harry Griesemer (305) 781-4040 Gil Runyan

PRODUCT

HOUDAILLE-FRAME

Inland-Ryerson Construction Co. 53201 Milwaukee, WI P.O. Box 393

FTS: (414) 224-0111 (414) 383-4030 John Peterson Gene Herbst

No system identified

John-Manville Corp. 80217 Greenwood Plaza Denver, CO

(303) 770-1000 Tom Madden

(303) 837-0111

FTS:

CORSPAN

Kirby Buildings Systems, Inc. 77036 P.O. Box 36429 Houston, TX

Henry Kohlleffel (Building Systems) Donald Sea (Kirbytruss) (713) 666-1941

(713) 226-4011

FTS:

KIRBY BUILDING SYSTEMS

KIRBYTRUSS

No system identified

Norfolk, VA 23501 Lone Star Ind. P.0. Box 1778

D. K. MacCubbin (804) 855-2063

FTS: (804) 441-6000

H. Russell Fink, Jr. Bernard E. Cromi

MACOTRUS

(216) 455-8971 (216) 456-2841 FTS:

44711

Canton, OH

Macomber, Inc.

P.O. Box 8830

William T. Russell, Jr. (207) 775-2351 Clyde S. Esty

No system identified

Portland, ME 04101 McCaw Industries P.0. Box 3546

(207) 775-3131

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MANUFACTURER	CONTACT	PRODUCT
Mesco Metal Building Corp. P.O. Box G Grapevine, TX 76051	J. Frank Moore David J. Montague (817) 488-8511 FTS: (214) 749-1011	No system identified
Mitchell Engineering Co. P.O. Drawer 911 Columbus, MS 39701	Robert A. Russell James E. Easter (601) 328-6722 FTS: (601) 948-7821	No system identified
Pascoe Steel Corp. P.O. Box 2628 Pamona, CA 91766	J. D. Title O. S. Lord (714) 623-1411 FTS: (213) 688-2000	PASCOE
Precast Concrete Co., Inc. Epson, NH 03234	Richard J. Gayer (603) 736-9322 FTS: (603) 669-7011	No system identified
Precast Systems, Inc. 10400 W. Higgins Rosemont, IL 60018	Carl F. Roth George J. Ziverts (312) 298-5570 FTS: (312) 353-4400	VERSA-SPACE
Rocky Mountain Prestress, Inc. 3900 S. Federal Blvd. P.O. Box 1434 Englewood, CO 80110	John Nanna Tom O'Arcy (303) 789-2757 FTS: (303) 837-0111	No system identified
Romac Steel Co. Inc. P.O. Box 5085, South Station Fort Myers, FL 33902	F. Paul R. Macomber (813) 936-8153 FTS: (904) 791-2011	MODULOC

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10919 W. Bluemound Rd. Milwaukee, WI 53226 Spancrete Co.

33307 Steel Fabricators, Inc. Fort Lauderdale, FL 721 N.E. 44th Place P.O. Box 23219

(414) 453-7980 FTS: (414) 224-0111 (305) 735-6011 Arthur M. Applegate (305) 772-0440 Wallace Weihing FTS:

PRODUCT

STITCH WALL

John R. Pankratz

CONTACT

02184 Steel & Span, Inc. Braintree, MA 140 Wood Rd.

19457 Structural Foam, Inc. RTE. 724 & Wells Rd. Parker Ford, PA

Arlington, TX P. O. Box 400 Texas Inc.

50010 Trus Joist Corp. P.0. Box 663 Ames, IA

F. 0'Neill

No system identified

FTS: (617) 223-2100 Glenn S. Orenstein (617) 848-4770

(215) 597-3311 Robert M. Jones David M. Peifer (215) 495-6256 FTS:

(214) 749-1011 638-8933 H. C. Cook C. T. Daniel (214) FTS:

(515) 232-0011 232-7109 Wilden (515)FTS:

FAB-LOK

No system identified

No system identified

TRUS JOIST

3:20 Data Summary 06

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4	THE OWNER

Unistrut Corporation Moduspan Division 4118 S. Wayne Rd. Wayne, MI 48184

FTS: (313) 226-6000

Sun Chein Hsiao (313) 721-4040

CONTACT

Western Precast Inc. 16203 Arrow Hwy. Irwindale, CA 91706 Automated Building Components 7525 North West 37th Ave. Miami, FL 33159

Richard S. Balon
Herb Stockinger
(213) 384-1281
FTS: (213) 688-2000
W. W. Wittmack
J. E. Meeks
(305) 696-0930
FTS: (305) 350-5011

MODUSPAN SPACE-FRAME

PRODUCT

No system identified

WOOD TRUSSES

No system identified

Marino Industries Corp. Montrose Road Westbury, NY 11590

subsystem	STRUCTURAL	A.	MAJOR MATERIAL	EXTERIOR WALL	FIRE PROTECTION	E
product data: structure	- 3 Dimensional Box - Structural Panel - Frame and Infill	. Отрет		Part of Subsystem - Structural Element - No Structural Purpose - Not Supplied	RATING	TEST
Bellaire Products, Inc.	0	-	Aluminum, Steel, Wood	0		
Bethlehem Contracting Co.	000	0			As req'd	
Canam Hambro Systems, Inc.		0	Struct. steel, Concrete	00	2-3 hrs	*
C/O/A Corporation						
C/O 18/18-8 Truss Joist	(2)		Galvanized steel	00	2-3 hrs	0
C/O 18/22-6 Truss Joist	0		Galvanized steel	00	2-3 hrs	\Diamond
MELCO Roof Truss		0	Galvanized steel	00	2 hrs	0
Coronis Building Systems, Inc.	•		Structural steel			
Cuckler Steel Span Co.	0		Structural steel	0		•
Harter Concrete Products, Inc.	00		Reinforced Concrete	000	As req'd	
Houdaille-Duval-Wright	0		Reinforced concrete	000		•
Inland-Ryerson Construction Co.		0	Structural steel	0		
Johns-Manville Corp.	0	0	Concrete, Steel	0	As req'd	
Kirby Buildings Systems, Inc.						
Kirbytruss	0	*	Metals	000		
Kirby Building Systems		0		0		
Lone Star Ind.	•		Concrete		2-4 hrs	鑿

subsystem				DIV	DIMENSIONS				
Product data:	PRIM	PRIMARY SPAN	b	SECON	SECONDARY SPAN	N	FLOOR-	FLOOR-FLOOR HEIGHT	ICHI
structure	МАХ	OPT	MIN	MAX	OPT	MIN	жах	OPT	MIM
C									
Bellaire Products, Inc.	12,-30"	11'-00"	10,-00"				10,-00"	8'-00"	81-00"
Bethlehem Contracting Co.	*	*	*	*	*	*	*	*	*
Canam Hambro Systems, Inc.	*	30,-0,,	*	*	*	*	*	*	*
C/O/A Corporation									
C/0 18/18-8 Truss Joist	24'-0"	16'-0"	12' -0"	009	40,-01	200"	30,-0"	20,-0"	10,-01
C/0 18/22-6 Truss Joist	18'-0"	12'-0"	8'-0"	26'-0"	40.01	20,-0"	20,-0"	81-6"	81-0"
MELCO Roof Truss	009	50'-0"	24'-0".	450"	400"	24'-0"			
Coronis Building Systems, Inc.	*	*	*	*	*	*	*	*	*
Cuckler Steel Span Co.	130'-0"	10-108	24'-0"	100,-01	10-108	20,-0"	N/A	N/A	N/A
Harter Concrete Products, Inc.	*	*	-1<	*	*	*	*	*	*
Houdaille-Duval-Wright	400"	25'-0"	0,-0,,	75,-0"	30,-0,,	00"	N/A	N/A	N/A
Inland-Ryerson Construction Co.	120'-0"	009	20,-0,,	27'-0"	24'-0"	15'-0"	N/A	N/A	N/A
Johns-Manville Corp.	*	*	*	*	*	*	*	*	*
Kirby Buildings Systems, Inc.									

* As required

45'-0" 25'-0"

20,-0"

501-0"

551-0"

201-0"

75'-0" 65'-0"

120'-0"

Kirby Building Systems

Lone Star Ind.

Kirbytruss

subsystem

subsystem				DIA	DIMENSIONS				
product data:	FLOOR-CE	FLOOR-CEILING HEIGHT	HSICHT	න	CANTILEVER	8	PLA	PLANNING MODULE	ULE
structure	МАХ	T-GO	MIN	жах	OPT	MIN	MAX	Ido	MIN
Bellaire Products, Inc.	3'-0"	8,-0,,	8'-0"	2'-0"	1'-0"	90			
Bethlehem Contracting Co.	*	*	*	*	*	*	*	*	*
Canam Hambro Systems, Inc.	*	*	*	*	*	*	*	*	*
C/O/A Corporation									
C/O 18/18-8 Truss Joist	20,-0,,	10,-01	8,-0,,	10,-01	0-19	90		0,-0,,	
C/O 18/22-6 Truss Joist	16'-0"	12'-0"	8,-0,,	0-19	40.	90		0,-0,,	
MELCO Roof Truss								.,9-,0	
Coronis Building Systems, Inc.	*	*	*	*	*	*	*	*	*
Cuckler Steel Span Co.	40,-01	26'-0"	8'-0"	20,-0,,	12'-0"	2,-0,,,		1,-0,,	
Harter Concrete Products, Inc.	*	*	*	*	*	*	*	*	*
Houdaille-Duval-Wright	N/A	N/A	N/A	12'-0"	8,-0,,	00,,	8'-0"	3,-4"	1,-8,,
Inland-Ryerson Construction Co.	20,-0,,		10,-01	N/A	N/A	N/A	N/A	N/A	N/A
Johns-Manville Corp.	*	*	*	*	*	*	*	*	*
Kirby Buildings Systems, Inc.									
Kirbytruss									
Kirby Building Systems	25'-0"		10,-0"	15'-0"		2,-0,,			
Lone Star Ind.	450.,	8'-0"	10	10,-0,,	8'-0"	00.	80.	40	4.0-01

* As required

	-	-	-	STREET, SQUARE,	-	-	-	-	-	The same of the same of	-	The state of the s	Contract of the Contract of th
subsystem product data:	CLE ARE (sq.	CLEAR AREA q. ft.	SAR SA ft.)	GROS: AREA (sq.	GROSS AREA sq. ft.)	•	T(HI (stc	TOTAL HEIGHT (stories)		MAX]	LIVE LOAD (PSI)	LOAD	LATERAL FORCE RESISTANCE
structure	MAX	OPT	MIM	MAX OPT	OPT	HIN	- KAX	MIN MAX OPT MIN	N H	FL00R	ROOF		Moment Frame Shear Walls Cross Bearing Wa
Bellaire Products, Inc.	48	44	07	48	777	40	亡	亡	80	T	30	30	000
Bethlehem Contracting Co.	*	=)<	*	*	*	*	*	*	*	*	*	*	As required
Canam Hambro Systems, Inc.	*	*	*	*	*	*	*	*	*	*	*	*	
C/O/A Corporation													
C/O 18/18-8 Truss Joist						-	100	I		200	200	50	000
C/O 18/22-6 Truss Joist									80		80	50	000
MELCO Roof Truss											40		0000
Coronis Building Systems, Inc.	*	*	*	*	*	*	*	*	*	*	*	*	
Cuckler Steel Span Co.							1	1	1		200	75	00
Harter Concrete Products, Inc.	*	*	*	*	*	*	*	*	*	*	*	*	As required
Houdaille-Duval-Wright	II/A	N/A	N/A	N/A	N/A	N/A N	N/A N	N/A N	N/A 25	250	09		000
Inland-Ryerson Construction Co.	N/A	N/A	N/A	N/A	N/A	N/A	2	-	10	100	50	20	000
Johns-Manville Corp.	*	*	*	*	*	*	*	*	*	*	*	*	As required
Kirby Bulldings Systems, Inc.													
Kirbytruss								1	*	*	*	*	0
Kirby Building Systems											40	25	000
Lone Star Ind.	2400	1679		800 None 1001 40k	1001		15 1	100	230	30	140	50	000
													ACT

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O Preferred Alternate

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structure	THROUGH PRIMARY SPANNING MEMBER	MARY	SPANNING MEMBER	EMBER
	RECTANGULAR	ROUND	RECTANGULAR	ROUND
e C				
Bellaire Products, Inc.				
Bethlehem Contracting Co.				
Canam Hambro Systems, Inc.				
C/O/A Corporation 6"	6" X 10"	6"dia	5" X 10"	5" dia
C/O 18/18-8 Truss Joist 6"	5" X 10"	6"dia	5" X 10"	5" dia
C/O 18/22-6 Truss Joist 6"	6" X 10"	6"dia	5" X 10"	5"dia
MELCO Roof Truss				
Coronis Building Systems, Inc. 30	301	40,,	15"	13
Cuckler Steel Span Co.				
Harter Concrete Products, Inc. 6"	5"	1.9	07	40,,
Houdaille-Duval-Wright				
Inland-Ryerson Construction Co.				
Johns-Manville Corp.				
Kirby Buildings Systems, Inc.				
Kirbytruss		23"		20"
Kirby Building Systems :://	II/A	N/A	N/A	N/A
Lone Star Ind.				

					-
subsystem	STRUCTURAL TYPE	MAJOR MATERIAL	EXTERIOR WALL	FIRE PROTECTION	LON
product data:	- 3 Dimensional Box - Structural Panel - Frame and Infill - Other		- Part of Subsystem - Structural Element - No Structural Purpose - Not Supplied	RATING	TEST
Macomber, Inc.		Structural steel	00	2 hrs	
McCaw Industries	0	Concrete block			
Mesco Metal Building Corp.	000	Struct & enameled steel			
Mitchell Engineering Co.	0	Structural steel			\Diamond
Pascoe Steel Corp.	0	Steel, Concrete	0		
Precast Concrete Co.	0	Precast concrete	0 0	2 hrs	
Precast Systems, Inc.	0	Precast .concrete	00	As req'd	
Rocky Mountain Prestress, Inc.	000	Concrete	000	As req'd	
Romac Steel Co., Inc.	0	Structural steel	00	2-4 hrs	
Spancrete Co.	00	Concrete	00	4 hrs	CT A
Steel Fabricators, Inc.		Struct steel, Met deck	0		
Steel & Span, Inc.	0	Structural steel	0		\Diamond
Structural Foam, Inc.	0	Concrete, Steel			100
Texas, Inc.	0	Concrete		2-4 hrs	\Diamond
Trus Joist Corp.	0	Wood	000		\Diamond
Unistrut Corporation	0	Light guage steel	00		
Western Precast Inc.	0	Concrete	00	-4 hrs	
	Preferred Alternate	Conducted by outside	agency �� PJ	Planned or de Not planned	desired 1

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structure

MIN

OPT

MAX

MIN

OPT

MAX

MIN

OPT

MAX

FLOOR-FLOOR HEIGHT

SECONDARY SPAN

PRIMARY SPAN

DIMENSIONS



Macomber, Inc.	450	30'-0"	100"	O08	009	10,-0"	*	*	*
McCaw Industries									
Mesco Metal Building Corp.	300,-0,,	50' -0"	100"	25'-0"	25'-0"	10,-01			
Mitchell Engineering Co.	180'-0" 70'-0"	10,-01	20,-0,,	30'-0"	25'-0"	20,-0"	N/A	N/A	N/A
Pascoe Steel Corp.	200'-0"	009	20,-01	40,-01	30,-0"	20,-0,,	N/A	N/A	N/A
Precast Concrete Co.	25'-0"	20'-0"					16'-0"	10,-01	
Precast Systems, Inc.	*	*	*	*	*	*	*	*	*
Rocky Mountain Prestress, Inc.	*	*	*	*	*	*	*	*	*
Romac Steel Co., Inc.	40,-0"	30,-0"	8'-0"	120'-0"	009	4,-0,,	*	13'-0"	10,-01
Spancrete Co.	40,-0,,	40,-0,,					10,-01	81-0"	
Steel Fabricators, Inc.	40,-0,,	30'-0"	15'-0"	009	30,-0,,	10,-0"	*	12'-0"	
Steel & Span, Inc.	150'-0"	00,-0,,	20,-01	30,-0,,	24,-0,,	10,-0,,	30,-0"	10,-0"	8,-0,,
Structural Foam, Inc.									
Texas, Inc.	72'-0"	48,-0,,	,,0-,0	,,0-,05	32'-0"	0.0-0	30,-0,,		
Trus Joist Corp.	125'-0"	40,-01	12'-0"						
Unistrut Corporation	0-,09	40,-0"	0-,02				N/A	N/A	N/A
Western Precast Inc.	120'-0"			.,005			11'-0"		

* As required

St

subsystem				DIP	DIMENSIONS			•	
product data:	FLOOR-CE	FLOOR-CEILING HEIGHT	пснт	<i>4</i> D	CANTILEVER	~	PLAI	PLANNING MODULE	ULE
structure	MAX	P T	MIN	MAX	OPT	MIN	MAX	TGO	NIN
Macomber, Inc.	5,-4"	46"	1.95	10'-4"	10'-4"	5'-4"	5'-0"	5'-0"	5'-0"
McCaw Industries									
Mesco Metal Building Corp.				20,-01	10,-0,,	2,-6"	2'-6"	2'-6"	2,-6"
Mitchell Engineering Co.	125'-0"	20.00	10,-01	25'-0"	10,-01	51-0"	20,-0"		
Pascoe Steel Corp.	20,-0,,	20'-0"	10'-0"	20,-0"	10,-01	3,-0,,	N/A	N/A	N/A
Precast Concrete Co.	16'-0"	10,-01						8,-0.,	
Precast Systems, Inc.	*	*	*	*	*	*	*	*	×
Rocky Mountain Prestress, Inc.	*	*	*	*	*	*	*	*	*
Romac Steel Co., Inc.	*	1.0-16	1,9-,1	10,-01	5'-0"	0.0-0	80.	2,-0,,	40"
Spancrete Co.	9'-2"	7,-2"		10,-01	00,,				
Steel Fabricators, Inc.		8'-0"		81-0"	2,-0,,		5'-0"	2,-0,,	5'-0"
Steel & Span, Inc.	30,-0,,	20,-0"	8,-0,,	N/A	N/A	N/A			
Structural Foam, Inc.									
Texas, Inc.	28'-0"			15'-0"			40.		
Trus Joist Corp.					12"0"				
Unistrut Corporation	≅/A	N/A	N/A	20,-0,,	10,-0"				4"
Western Precast Inc.	80.			81-0"					
	Separation and the separate of	PHILIPPING CONTROL OF THE PRINCIPLE OF T	Lame Street	Commission of Street, Spirit	The state of the s	-	designation of the last of the	-	-

* As required

														I
subsystem product data:	o V V S	CLEAR AREA (sq. ft.)	•	GROSS AREA (sq. fi	SS A ft.)		T OTAL HEIGHT	L	MAX	LIVE LOAD (PSI)	гоар	LATERA	LATERAL FORCE RESISTANCE	E C
structure	МАХ	TAO	MIN	YAX 0	OPT MIN MAX OPT MIN MAX OPT	N MAX	OPT	MIN	FLOOR	ROOF	MIND FOWD	Moment Frame Shear Walls	Cross Bearing Wa	Осрег
Macomber, Inc.					+	2	2	2	100	50	20	6	+	-
McCaw Industries				-	-	-	-						-	
Mesco Metal Building Corp.						2	11	1	150	20	25	0		_
Mitchell Engineering Co.	117k	80k	400	N/A N	N/A N/A	A N/A	N/A	N/A	N/A	07	55	0		
Pascoe Steel Corp.	11/A	N/A	N/A	N/A N	N/A N/A	A N/A	N/A	N/A		125	80	0	-	
Precast Concrete Co.							8				50	0	0	
Precast Systems, Inc.	*	*	*	*	*	*	*	*	*	*	*	O		
Rocky Mountain Prestress, Inc.	*	*	*	*	*	*	*	*	*	*	*	0	0	
Romac Steel Co., Inc.	4.8k	1.81	32 3	300k100k	00k 15k	ik 10	5	1	150	09	7.5	0		
Spancrete Co.	980	980		1k	1k	30	20	1	009	009	100	0	-	
Steel Fabricators, Inc.						5	1	1				0	0	
Steel & Span, Inc.	100k	1.61400		100k240k	401 400	0 3	1	1	200	09	35	0	0	
Structural Foam, Inc.									N/A	N/A	N/A			
Texas, Inc.	N/A	N/A	N/A	N/A N	N/A N/A	A 1	1	1	150	100	20	0		
Trus Joist Corp.														0
Unistrut Corporation						N/A	N/A	N/A	N/A	40	N/A			
Western Precast Inc.) ()	0	

* As required

Preferred Alternate

3:20 Data Summary 16

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product data:	LARGEST DUCT THROUGH PRIMARY SPANNING MEMBER	ICT MARY MBER	LARCEST DUCT THROUGH SECONDARY SPANNING MEMBER	UCT ONDARY EMBER
Street	RECTANGULAR	ROUND	RECTANGULAR	ROUND
Macomber, Inc.	12" X 24"	20"dia	12" X 24"	20"dia
McCaw Industries				
Mesco Metal Building Corp.				
Mitchell Engineering Co.				
Pascoe Steel Corp.	12" x 12"	12"dia	3" X 3"	3"dia
Precast Concrete Co.				
Precast Systems, Inc.				
Rocky Mountain Prestress, Inc.				
Romac Steel Co., Inc.	12" X 22"	20"dia	14" X 30"	24"dis
Spancrete Co.	10' X 10'	10'dia	10' X 10'	10'dia
Steel Fabricators, Inc.	*	*	*	*
Steel & Span, Inc.				
Structural Foam, Inc.				
Texas, Inc.				
Trus Joist Corp.	30" x 30"	30"dia		
Unistrut Corporation		22"dia		
Western Precast Inc.				

* As required

interior partitions subsystems manufacturers of

PRODUCT	THINWALL	TYPE 12 PORTABLE WALL ASONIC OPERABLE WALL	AIRWALL 300 Series 400 Series 700 Series 800 Series	No system identified	No system identified	SHO-WALL	VANGUARD UNITIZED CRUSADER
CONTACT	Pete Coffin Harold Asel (716) 483-1551 FTS: (716) 842-3311	Wesley B. Dickson (714) 635-5350 FTS: (213) 688-2000	Arthur G. Imbrecht (213) 634-3116 FTS: (213) 536-6000	Jerome R. Salton (216) 823-1605 FTS: (216) 455-8971	Donald V. Cartledge Douglas Snyder (813) 355-7166 FTS: (904) 791-2011	I. G. Murray (203) 388-4441 FTS: (203) 244-2000	Pete Reynard Bill Timko (216) 282-2604 FTS; (216) 522-3131
MANUFACTURER	Adanlock Jamestown Corp. 55 Jones Jamestown, NY 14701	Advanced Equipment Corp. 241 Crescent Way Anaheim, CA 92801	Airwall Division Richard-Wilcox Mfg. Co. 8140 E. Rosecrans Paramount, CA 90723	Alliance Wall Corp. P.O. Box 247 Alliance, OH 44601	Bellaire Products Inc. P.O. Drawer C Tellevast, FL 33588	The Brewster Corp. 01d Saybrook, CT 06475	Donn Products, Inc. 1000 Crocker Rd. Westlake, OH 44091

interior partitions subsystems 0 manufacturers

CONTACT	Don Jones (209) 466-4636 FTS: (209) 466-2671
MANUFACTURER	Flangeklamp of California 1433 Tillie Lewis Stockton, CA 95204

DIMENSION-WALL

PRODUCT

			700	334	
			361-5700	361-2334	^
		466-26/1	(816)	(816)	4-721
Jones	9	(503) 46	Steve Nichols	Anderson	(816) 374-7212
Don Jo	(209)	FIS:	Steve	Dave A	FTS:

			EM
QUICK-CHANGE #175 #275	No system identified	No system identified	SPEED STEEL FRAMING SYSTEM
Steve Nichols (816) 361-5700 Dave Anderson (816) 361-2334 FTS: (816) 374-7212	H. L. Birum, Jr. (609) 396-1750 FTS: (201) 645-3000	Eli D. Bernheim (608) 756-1241 FTS: (414) 224-0111	Robert Lane
Glen O'Brien Movable Partition Co., Inc. 5301 E. 59th P.O. Box 6988 Kansas City, MO 64130	<pre>H. L. Birum, Corp. 75 S. Union St. Lambertville, NJ 08530</pre>	Hough Manufacturing Corp. 1809 Adel Street Janesville, WI 53545	Keene Corporation

Doyle Boothroy (304) 295-4581 FTS: (304) 343-6181	Verlin Robbins Walter Claypool (217) 522-5553 FTS: (217) 525-4200
Metal Products Division Rt. #1, Box #14 Vienna, WV 26101	Kwik Wall Division Capitol Wood Works P.O. Box 3267 Springfield, IL 62708

KWIK WALL

interior partitions subsystems manufacturers of

PRODUCT	No system identified	PARTITIONER SPACESTYLER	STAURN MOVABLE PARTITIONS SATURN LANDSCAPE PARTITIONS	No system identified	USG DEMOUNTABLE PARTITION ULTRAWALL MOVABLE PART. VAUGHAN WALL	VAUGHAN WALL 700 Series 900 Series 1700 Series 1900 Series 2700 Series
CONTACT	Richard Gayer (608) 736-9322 FTS: (603) 669-7011	Michael J. O'Leary (516) 239-1000 FTS: (212) 460-0100	Don Codrea (213) 321-8602 FTS: (213) 688-2000	Harvey Phillips Ellwood Irish (313) 721-4040 FTS: (313) 226-6000	R. Lindegard (312) 321-4000 FTS: (312) 353-4400	Lloyd S. Henry (213) 879-0840 FTS: (213) 688-2000
MANUFACTURER	Precast Concrete Co.,Inc. Epson, NH 03234	Rockaway Metal Products Corp. 175 Roger Ave. Inwood, Long Island NY 11696	Saturn Mfg. Corp. 20100 Hamilton Ave. Torrence, CA 90502	Unistrut Corporation 4118 S. Wayne Road Wayne, MI 48184	United States Gypsum Co. 101 S. Wacker Drive Chicago, IL 60606	Vaughan Interior Walls, Inc. 11681 San Vicente Blvd. Los Angeles, CA 90049

product data legend

Baked enamel, porcelain, or enameled steel. Expanded polystyrene. Polystyrofoam. Paper fiber. Fiberglass. Insulation. Honeycomb Aluminum. Asbestos. Particle. Plastic. Plywood. Gypsum. Carpet. Veneer. Metal. Nylon. Paint. Sheet. Vinyl. Board Hard. exp-psr be-stl fbgls plywd car gyp ins asb met psf ny1 hc py pa

FIRE PROTECTION TESTS

Fire resistance in hours as specified by NFPA No. 251.

Flame spread in numbers relating to the standard, select grade red-oak flooring = 100 tested in accordance with NFPA No. 255.

Smoke development in optical density or light absorption tested in accordance with NFPA No. 255.

ACOUSTICAL TESTS

Sound Transmission Classification (STC) in db as determined by test outlined in ASTM E90-61T.

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subsystem	GENERAL	RAL INFO	INFORMATION			MATERIALS	
product data: partitions	Prefabricated Panels Load Bearing	Integrated With Flectric Integrated With Plumbing	pemontable Demontable	Operable	FINISH	WEARING	CORE
Adanlock Jamestown Corp.	O	\vdash	0	be	9		pf-hc
Advanced Equipment Corp.							
Asonic Operable Walls	0	0		e O	met, wd, p1,	met, pl,	fbgls, gyp, met
Type 12 Portable Wall	0	0	ŏ	e O	met, wd, pl,	met, wd, p1,	
Airwall Division of Richard-Wilcox Mfg. Co.	0	0	000	A A	wd, pt-bd, wd-v	car, wl-sh	pf-hc, fbgls-hc
Alliance Wall Corp.	0		0	o O	be-st1		gyp,hd-bd,asb
Bellaire Products Inc.	<u>ေ</u>		00) a	al,plywd	al,plywd	pf,psf,
The Brewster Corp.	000		00	5	vnl-sh,nyl,	pt-bd	pw
Donn Products, Inc.							
Vanguard	0	000	000	ď	pa,vnl-sh,	pa, vni-sh,	gyp-bd
Unitized	0	000	0	P	be-stl, vnl-sh,	be-stl, vnl-sh,	gyp-bd
Crusader	0	50¢	000	P	be-stl, vnl-sh,	be-stl, vnl-sh,	gyp-bd
Flangeklamp of California			0				
Glen O'Brien Moveable Partition Co., Inc.	0	000	000	, ej	al, vnl-sh,	•pq-d&8•pq-pu	exp-psr, fbgls-bat,
H. L. Birum Corp.			3	La La	1	ash	ins

3:20 Data Summary 22

Preferred Alternate

subsystem	HORIZONTAL				DI	DIMENSIONS				
product data:	LIVE		WIDTH			HEICHT		II	THICKNESS	1
partitions	- LESS THAN. 5 PSF	MIN	мах	INCR	MIN	MAX	INCR	MIN	MAX	INCR
Adanlock Jamestown Corp.	0	6,,	6'or4'	9.1	39"	68"/18	*	13/4"	13/4"	13/4"
Advanced Equipment Corp.										
Asonic Operable Walls	0	12"	20.	12"	1.01	30,-0"	1"	214"	.3"	= 7/4
Type 12 Portable Wall	0	9	20"	1"	12'-0"	12'-0"	1.9	3½"	32."	
Airwall Division of Richard-Wilcox Mfg. Co.	0	14"	4715"	2"	8'-0"	17'-0"	9	15/8"	212"	1/8"
Alliance Wall Corp.		2'-0"	20.	9	2'-0"	12'-0"		3/8"	4"	1/8"
Bellaire Products Inc.	0	9	40.1	9	4,-0,,,	30,-0"	10	13/4"	9	1,,
The Brewster Corp.	0	3,-0,,	8,-0,,	1'-0"	4,-0,,	70.1	1'-0"	2"	3½"	
Donn Products, Inc.										
Vanguard	0	2,-0"	40	1"	8'-0"	10,-01	1,,	3"	34."	
Unitized	0	2'-0"	2'-6"	1"	8'-0"	100"	1"	3"	3"	1,,
Crusader	0	9	3,-0,,	1"	9	144"	1"	3"	6"	
Flangeklamp of California										
Glen O'Brien Moveable Partition Co., Inc.	-0-	0,,	4'-1"		3,-6"	24'-0"		13/4"	23/4"	
H. L. Birum Corp.		.0	40,,	40.,	,,0	12'-0"	12'-0"	19/16"	2"	

3:20 Data Summary 23 O Alternate

subsystem	PLANNING MODULE		RELOCATABILITY	LITY RATE MOVED BY			FIRE PROTECTION	TECTION	2	
product data:			lin. ft./ manhour		FIRE RESISTANCE	E	FLAME	FLAME	SMOKE DEVELOPMENT	KE PMENT
partitions	HORIZONTAL	VERTICAL		Partition manufa Skilled craftsman Owner's Maint. s	RATING	TEST	RATING	TEST	RATING	TEST
Adanlock Jamestown Corp.			10	0			5	灣	0	
Advanced Equipment Corp.										
Asonic Operable Walls	12"	9		•		\Diamond		\Diamond		\Diamond
Type 12 Portable Wall			09	0		\Diamond		\Diamond		\Diamond
Airwall Division of Richard-Wilcox Mfg. Co.	2"	2"	07	•	13	義	10-15		5	
Alliance Wall Corp.				·	0		0	*	0	***
Bellaire Products Inc.							030		030	
The Brewster Corp.			09		*	*	*		*	•
Donn Products, Inc.										
Vanguard	*	*	5	0	lhr	*				
Unitized	30"	*	30-40	0	Ihr		class A		class A	
Crusader	30"	*	3	0	1-2hrs		class A	4	class A	
Flangeklamp of California	4,	12"	10	00	lhr		lhr		lhr	
Glen O'Brien Moveable Partition Co., Inc.	N/A	N/A	1-3	000	class A	•				
H. L. Birum Corp.							,	•		
* Varies	Preferred Alternate	rred	Con	Conducted by Conducted in-	outsid	agency 20 Date	e agency Plan Not	Planned Not plan	or	desired

subsystem	DOOR FRAMES	DOOR TYPES			ACOUSTICS	rics		
product data:			PARTY WALL		WALL WITH DOOR	 800	NON-PARTY WALL	RTY
partitions	-Steel -Stuminum -Aluminum -Plastic -Other	-Wood Hollow Core -Wood Solid Core -Class B Fire Door	RATING T	TEST	RATING (STC)	TEST	RATING (STC)	TEST
Adanlock Jamestown Corp.	0	000	36		22			-
Advanced Equipment Corp.								-
Asonic Operable Walls			94		41		38	
Type 12 Portable Wall	0	0		\Diamond		0		\Diamond
Airwall Division of Richard-Wilcox Mfg. Co.	-O-	0	38-44	-[]-				
Alliance Wall Corp.		•						-
Bellaire Products Inc.	000	00000			30	line and		-
The Brewster Corp.			*					-
Donn Products, Inc.								-
Vanguard	00						34-38	
Unitized	0						36-42	
Crusader	00		50		37		36-50	-
Flangeklamp of California	000		48		48	5	. 84	Prod
Glen O'Brien Moveable Partition Co., Inc.	-O-	00000	07			\rightarrow	36	-0-
L. Birum Corp.	0000	00000						
* Varies (O Preferred O Alternate	Conducted by	by outside age in-house 3:20 Data	agency ita Summary	\$ 0 %	Planned Not plan	or	desired

200000000000000000000000000000000000000		GENERAL I	INFORMATION			MATERIALS	
product data:	sŢəu		gaidmul ^c		FINISH	WEARING SURFACE	CORE
partitions		ит ф	MIFP I				
	refabricat	oad Bearin ntegrated ntegrated	ntegrated	perable			
Hough Manufacturing Corp.		ı—	a—	0			
Hufcor - Accordion				0	PVC	PVC	pt-bd,stl,
Hufcor - Unispan for Accordian				0	be-stl, PVC	be-stl, PVC	
Hufcor - Operable	•			0	PVC,st1	PVC,st1	gyp, pf-batts
Hufcor - Unispan for Operable		0		0	be-stl, PVC,	be-stl, PVC	
Hufcor - Portable	0	0	0		PVC	PVC	hc
Hufcor - Semi-portable	0	0	0		PVC	PVC	hc
Keene Corp.							
Kwik Wall Division	0	0	0	0	p1-v,vn1	a1	hd-bd,wd,
Precast Concrete Co., Inc.	0	~			concrete	concrete	concrete, ins
Rockaway Metal Products Corp.	0		0		be-stl	be-stl	fbgls-ins & hc
Saturn Mfg. Corp.	0	0	0		pl-v,vml-sh,		hc,psf,
Unistrut Corp.		0	0		*	*	*
United States Gypsum Co.							
USG Demountable Partition			0		gyp-bd,plaster	pa,vnl-WC	stl,gyp
Ultrawall Moveable Partition			0		gyp-bd,plaster	pa, vnl-WC	stl,gyp
Vaughan Interior Wall, Inc.	0	0	6		pl, vnl-sh,	gyp-bd,al,	gyp-bd

* Varies 3:20 Data Summary 26

Preferred O Alternate

subsystem	HORIZONTAL				DI	DIMENSIONS	ν .			
product data:	LIVE		WIDTH			нетснт		I	THICKNESS	6
partitions	· 2 PSF OR MORE	MIN	мах	INCR	MIN	MAX .	INCR	MIN	мах	INCR
Hough Manufacturing Corp.										
Hufcor - Accordion	0		300"	,,9		14'-0"	1,5			
Hufcor - Unispan for Accordion	0		40.05	176		10-,61	1/2			
Hufcor - Operable		2'-6"	4,-0,,		1,0-,1	24'-3"		44"	7.1	
Hufcor - Unispan for Operable	0		35'-0"			14,-0,,				
Hufcor - Portable	0	1'-10"	2'-0"		1.0-,2	12'-3"				
Hufcor - Semi-portable	0		4'-0"			12'-3"		3"	3"	
Keene Corp.	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Kwik Wall Division	0		2:-0"			16'-0"		13/4"	3"	
Precast Concrete Co., Inc.			25'-0"			10'-0"			9	
Rockaway Metal Products Corp.		9	5'-0"	9	3,-0,,	10'-3"	*	23/8"	3,,	23/8"
Saturn Mfg. Corp.		1,-0,,	21-0"		20."	10,-0"		13/4"	13/4"	
Unistrut Corp.	0									
United States Gypsum Co.										
USG Demountable Partition	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ultrawall Moveable Partition	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/4
Vaughan Interior Wall, Inc.		2'-0"	3'-0"	1,,	30.	14'-0"	1"	2½"	9	, ht.
	untracchamment decream.	AND ASSESSED.	Property and Publishers		-	Chemistra Company	-	4		Section and sections

O Preferred

* Varies 3:20 Data Summary 27

Product data:	subsystem	PLANNING MODULE	NING	RELOCATABILITY RATE	LITY RATE MOVED BY			FIRE PRO	PROTECTION	z	
Conducted by outside agency Conducted tu-bose Conducted tu-b	product data:			lin. ft./ manhour	cturer a		E	FLA	ME EAD	SMO	KE PMENT
Accordion 12" 12" *	partitions	HORIZONTAL	VERTICAL		killed craftsman		TEST	RATING	TEST	RATING	TEST
Accordion 12" 12"	Hough Manufacturing Corp.	-	1		s—		\pm		\pm		+
Accordion 12" 12" *				*	000			3	-	205-300	
12" 12"	Unispan for Accordi		12"	*	0				\Diamond		
Pperable 12" 12"	1	12"	12"	*	0						*
12" 12" 40'		12"	12"	*	0	*		*		*	-
P. 6" * * * * * * * * * * * * * * * * * *	1	12"	12"	40,	000	*		*		*	
48"	1	12"	12"	4,	000	*		*		*	
48"	Keene Corp.					2hrs					
P. 6"	Kwik Wall Division	48"		*	0				•		0
p. 6" * 25" C C C C C C C C C C C C C C C C C C C	Precast Concrete Co., Inc.				-		\Diamond		0		0
fon *	Rockaway Metal Products Corp.	9	*	251	000		\Diamond		0		0
fon * * * * 0 títíon * * * * 0 * * * * 0 0 * * * * 0 0 * * * * 0 0 * * * * 0 0 * * * * * 0 * * * * * 0 * * * * * * * * * * * * * * * * * * * * * *<	Saturn Mfg. Corp.	4'-5'	*	501	0			0-25			
fon * 15 0 títion * 15 0 * * 15 0 * * 15 0 * * * 0 * * * 0 * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * <t< td=""><td>Unistrut Corp.</td><td></td><td></td><td></td><td></td><td></td><td>\Diamond</td><td></td><td>\Diamond</td><td></td><td>0</td></t<>	Unistrut Corp.						\Diamond		\Diamond		0
tition	United States Gypsum Co.										-
tition * * 6	USG Demountable Partition	*			0	*	li i	15		0	
es	Ultrawall Moveable Partition	*				*	蠼	15	療	0	- AND
Preferred	Vaughan Interior Wall, Inc.	*	*	9	000	lhr					
Alternate			rred		by		agency		Planne	9	Lred
			nate	ğ					Not pla	anned	

partitions Partit	subsystem	DOOR FRAMES	DOOR TYPES		ACOUSTICS	TICS		
tition tition	product data:			PARTY WALL	WAL WITH D	LOOR	NON-PARTY WALL	RIY
CCordion		-Steel Aluminum -Plastic	-Wood Hollow Core -Wood Solid Core -Class B Fire Door			TEST	RATING (STC)	TEST
Accordion 45 1 45 1 45 1 45 1 45 1 45 1 48 1 1 48 1 1 48 1 1 48 1 1 45	Hough Manufacturing Corp.	1						1
Cocordion	1	000		-				-
perable	- Unispan for Accordi			\Diamond	_			
perable	1	00		38-48	38-48		38-48	[J
p.	- Unispan for Operabl			\Diamond	_			
	1	0	0	\Diamond				
P.	1	0		\Diamond	1			
P.	Keene Corp.	0000						
P.	Kwik Wall Division	0		-			41	
p. ♦		0000		\Diamond		\Diamond		\Diamond
ton		0	000	\Leftrightarrow	_	\Diamond		
tition ○○○ ○○○	Saturn Mfg. Corp.	0	0	-	30	24.00	30-42	STORE STORE
tition ○○○○	Unistrut Corp.	0	000	\Leftrightarrow		\Diamond		\Diamond
ton	United States Gypsum Co.							-
tition	USG Demountable Partition	0000	0	*			*	
00000 25 T 30 T	Ultrawall Moveable Partition	0000	00000	*			40	
	Vaughan Interior Wall, Inc.	000	00000	55	30		36	Proj

* Varies

O Preferred O Alternate

Conducted by outside agency Planned or desired Conducted in-house Summary 29

manufacturers of heating, ventilating, and cooling subsystems

CONTACT	George O. Pringle (513) 461-5100 FTS: (513) 461-4830
MANUFACTURER	Airtemp Division Chrysler Corporation 1600 Webster St.

No system identified

PRODUCT

•	
George O. Pringle (513) 461-5100 FTS: (513) 461-4830	Robert C. Braverman (502) 637-0011 FTS: (502) 582-5011
irtemp Division hrysler Corporation 600 Webster St. ayton, OH 45401	merican Air Filter, Co., Inc. 15 Central Avenue ouisville, KY 40401

Robert C. Braverman	Forrest L. Bishop
(502) 637-0011	(202) 659-2380
FTS: (502) 582-5011	FTS: 900+7 Digit Commer.No.
American Air Filter, Co., Inc.	Borg-Warner Corporation
215 Central Avenue	1101 17th St.
Louisville, KY 40401	N.W. Washington DC 20015

(202) 659-2380	FTS: 900+/ Digit Commer.	Walter W. Treichler	(315) 463-8411	FTS: (315) 473-3350
	N.W. Washington DC 20015	Carrier Air Conditioning Co.	Carrier Parkway	Syracuse, NY 13201

	Street	22314	
unham-Bush, Inc	711 No. Fayette	Iria, VA	
Dunham-	711 No.	Alexandria,	

Leroy M. Bissett (703) 549-1373 FTS:900+7 Digit Commer.No.

Inc.			50316
Lennox Industries Inc.	3340	t. Sta.	
Lennox In	P.O. Box 3340	E. 14th St. Sta.	DesMoines, IA

Warren B. Johnson (515) 266-1181 FTS: (515) 284-4000

16					
PTAC-AAF Series	13	SC UNIvent	20	NO	
-AAF	AAF MARK	SC UN	MARK 20	ENERCON	
PTAC	AAF	AAF	AAF	AAF	

Ivent	20	NO	
SC UNIVERS	MARK 20	ENERCON	
AAF	AAF	AAF	

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	ROOFTOP MULTIZONE-DMS 4-185,275,300,360,415,600 ROOFTOP SINGLEZONE-DSS1-300,360 INDOOR MULTIZONE-DMS2-275 All Season Single Package GS3 and CHA3
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3:20 Data Summary 30

manufacturers of heating, ventilating, and cooling subsystems

	Corp.	15907
MANUFACTURER	Miller/Picking Corp. Box 130	Johnstown, PA

H. M. Picking IIIJ. Thomas Sobieski(814) 479-4023FTS: (412) 644-3311	Gary R. Brooks (Normal, IL) (309) 452-2012 FTS: (312) 353-4400
Miller/Picking Corp. Box 130 Johnstown, PA 15907	McQuay Division McQuay-Perfex Inc. 13600 Industrial Park Blvd. P.O. Box 1551 Minneapolis, MN 55440

SEASONMASTER/ROOFPAK

PENTHOUSE

PRODUCT

CONTACT

	Ron L. Weldon (608) 782-8000 FTS: (608) 252-5000 Phillip hoskin (703) 525-4015	don 252	(608)	Weldon (608) 782-8000 508) 252-5000
--	--	------------	-------	--

The Trane Copany 3600 Pammell Creek Road La Crosse, WI 54650

subsystem	GENERAL INFORMATION	ENERGY	SOURCE	ENERGY CONVERSION
product data: heating, ventilating,	ontrolled zones ing in one system units			tion
	Heating & cool -Self contained -Terminal units -Constant volum -Variable volum	-Electricity -Natural gas	-Coal -L.P. gas -Other	-Forced air -Hot water -Steam -Electric radia -Other
Airtemp Div. of Chrysler Corp.	0000			000
American Air Filter Co., Inc.				
AAF Mark 13		多		0000
AAF Mark 20	00000000			0000
AAF EnerCon	00000000			0000
PTAC-AAF Series 16	00000000		N	0000
AAF SC UNIVENT	0000000	Z		
Borg-Warner Corp.	0000000			00000
Carrier Air Conditioning Co.	000000			0
Dunham-Bush, Inc.	000000			0000
Lennox Industries, Inc.	0000000			000
McQuay Div., McQuay-Perflex Inc.	00000000		Z	000
Miller/Picking Corp.	0000 0000			0000
	d 🌑	Preferred	🙀 Heating/Cooling	oling Meating
	Ŏ	Alternate	3:20 Data Sun	Summary 32 Cooling

subsystem product data:	HEATING OUTPUT	COOLING	COOLING AIR VOLUME OUTPUT	MINIMUM SIZE OF SINGLE ZONE	MAXIMUM NUMBER OF ZONES	CONTROL ZONES PER UNIT	UNIT
venting,	(væv)	(tons)	(cfm/unit)	(sq. ft.)			
			X				. Rooftop . Above ceilin . Other
Airtemp Div. of Chrysler Corp.	*	*	*	*	*	*	
American Air Filter Co., Inc.							
AAF Mark 13	450	32	13,500	100	none	12	0
AAF Mark 20	976	09	20,000.	100	none	20	
AAF EnerCon	81	4.2	1,730	100	nore	1	000
PTAC-AAF Series 16	16.5	1.1	007	100	none	1	0
AAF SC UNIVENT	50	7	1,250	100	none	1	0
Borg-Warner Corp.	300	*	*	20	none	*	
Carrier Air Conditioning Co.	0	65	220	100	none	1	00
Dunham-Bush, Inc.		10-40	3460-15120			12-16	0
Lennox Industries, Inc.	850	43	18,000	100	none	18	0

* Varies

none none

200--50000 100,000

2-140

1-5,000

McQuay Div., McQuay-Perflex Inc.

Miller/Picking Corp.

300

2000

Preferred O Alternate

lighting/ceiling subsystems 0 manufacturers

PRODUCT	ARMSTRONG C SERIES	C-60 SERIES	VARI-TEC 800	No system identified	COMPAC	DONN COORDINATOR	FLANGEKLAMP RIGID-AIR
CONTACT	W. C. Fleming (904) 353-7365 FTS: (904) 791-2011	D. H. McNaughton (717) 397-0611 FTS: (717) 394-0681	<pre>K. W. Holm (813) 871-4137 M. C. Garland (813) 871-4419 FTS: (813) 228-2211</pre>	Edward G. Sluka (312) 458-5460 FTS: (312) 353-4400	A. A. Dunn (314) 553-3069 T. L. Ballman (314) 553-3106 FTS: (314) 622-8100	David Vanosdall Bert Lahn (216) 871-1000 FTS: (216) 522-3131	John R. Moberly Robert Lees (716) 825-6650 FTS: (716) 842-3311
MANUFACTURER	Acousti Engineering Co. of Fla. P.O. Box 2147 Jacksonville, FL 32203	Armstrong Cork Co. Liberty Street Lancaster, PA 17604	The Celotex Corporation 1500 N. Dale Mabry Tampa, FL 33622	Chicago Metallic Corp. 4849 S. Austin Ave. Chicago, IL 60638	Day-Brite Lighting Division Emerson Electric Co. 8100 Florissant St. Louis, MO 63136	Donn Products Inc. 1000 Crocker Road Westlake, OH 44145	Flangeklamp Industries 1971 Abbott Rd. Buffalo, NY 14218

3:20 Data Summary 34

lighting/ceiling subsystems 0 manufacturers

PRODUCT	PROJECT EC	No system identified	HOLOPHANE CEILING/LIGHTING SYSTEM NATIONAL CEILING/LIGHTING SYSTEM	INTEGRA'TEE	SERIES 3000
CT	R. W. Barnes T. Mueller (314) 533-3200 FTS: (314) 622-8100	H. J. Cohan (201) 687-3611 FTS: (201) 645-3000	Robert Hughes (Holophane) J. C. Busch (National) (303) 770-1000 FTS: (303) 837-0111	Hal Kline Ormand Sutter (714) 871-9500 FTS: (213) 688-2000	Thompson 966-1300 (312) 353-4400 ·
ER CONTACT	Division dustries 63103	Division Co., Inc.	Corp. 217	nue 4	eiling H. J. (312) n. St. FTS: ve, IL 60053
MANUFACTURER	Guth Lighting Sola Basic Inc P.O. Box 7079 St. Louis, MO	Interior Systems Sunbeam Lighting 2345 Vauxhall Rd. Union, NJ 07083	Johns-Manville Corp. Greenwood Plaza Denver, CO 80217	Lok Ceiling Systems General Electric Co. 801 South Acadia Ave Fullerton, CA 9263	National Ceiling Johns-Manville Co. 6200 Oakton St. Morton Grove, IL

No system identified

R. L. Keeler (716) 852-5880 FTS: (716) 842-3311

National Gypsum Company 325 Delaware Ave. Buffalo, NY 14226

lighting/ceiling subsystems of manufacturers

MANUFACTURER The Soundlock Corporation	CONTACT Richard G. Barnett	PRODUCT OMNI 33 SYSTEM	
2004 Breckenridge Dr., N.E. Atlanta, GA 30345	(404) 633-9464 FTS: (404) 526-0111	SOUNDHIE SYSTEM MINI-COFFER SYSTEM	
SYNCON 1717 South 12th Street	Joseph C. White Douglas C. Rvhn	SYNCON	
Milwaukee, WI 53204	(414) 671-1180 FTS: (414) 224-0111		
United Lighting/Ceiling Corp.	P. W. Pfeiffer	CYLINDRICELL 5000) AC
513 Independent Rd.	(800) 227-0428	LIGHT-LOK 5005	AC .
Contains, on their	(2011 1101)	PLUS 5	6000 AC 9000 9500

product data legend

Baked enamel, porcelain, or enameled steel. Expanded polystyrene. Polystyrofoam. Paper fiber. Fiberglass. Insulation. Honeycomb Aluminum. Particle. Asbestos. Plastic. Plywood. Gypsum. Carpet. Veneer. Metal. Sheet. Vinyl. Nylon. Paint. Board Hard. Wood. exp-psr be-stl fbgls plywd car asb gyp fus psf met nyl hc hd

FIRE PROTECTION TESTS

Fire resistance in hours as specified by NFPA No. 251.

Flame spread in numbers relating to the standard, select grade red-oak flooring = 100 tested in accordance with NFPA No. 255.

Smoke development in optical density or light absorption tested in accordance with NFPA No. 255.

ACOUSTICAL TESTS

Sound Transmission Classification (STC) in db as determined by test outlined in ASTM E90-611.

subsystem	GENERAL INFORMATION CEILING	GENERAL INFORMATION	CEILING MATERIAL	ATERIAL
product data: lighting/ceiling	aring system	e, exit)	STRUCTURE	FINISH
	- Applied directly to - Suspended - Integrated with ligh - Integrated with HVC - Integrated with part	- Incandescent - Fluorescent - Exterior lighting - Safety lighting (fir		
Acousti Engineering Co.	000	000	Aluminum, steel	Anod-al,be-stl
Armstrong Cork Co.	00000	0		Paint
The Celotex Corp.	0000	0000	Aluminum, be-stl	Mineral fiber
Chicago Metallic Corp.	000000			Enameled steel
Day-Brite Lighting Div.	00000	000	Acrylic lens, be-st.	White, *
Donn Products Inc.	00000	0	Enameled steel	Black & white
Flangeklamp Ind.	00000			
Guth Lighting Div.	00000	00 00	Cold rolled steel	Acrylic paint
Interior Systems Div. Sunbeam Lighting Co., Inc.		00000		
Johns-Manville Corp.				
Holophane Ceiling & Lighting	0000	000	N/A	N/A
National Ceiling & Lighting	00000	0	Steel, aluminum	
Lok Ceiling Systems	00000	00	Steel, aluminum	pa,vnl,met.pl-v,
National Ceiling	00000	000	-	B.W.E., anod.
		3:	3:20 Data Summary 38	Preferred O Alternate

subsystem							-	
product data:	DIMENSIONS	S	ASSEMBLY	40W PLANN	40W TUBES PER PLANNING MODULE	PER	AIR HANDLING ACCOMMODATIONS	ouJy
lighting/ceiling	PLANNING MODULE			TO	TO MAINTAIN	NIN	re	Jine
		OE BYZIC WODN'E ZAEDIAIZION	Flat panel Coffer (3-D) Luminous ceiling Other	70 footcandles	100 footcandles	200 footcandles	Air bar Air handling fixtu Diffuser Other	Partition accommod on planning module Partition accommod at any location
Acoust1 Engineering Co.	.09 X09	禄	000	1	2	18	000	
Armstrong Cork Co.	* *09 X09	*	00	*	*	*	0	0
The Celotex Corp.	"09 X "09	100	000	1.3	2	3	000	0
Chicago Metallic Corp.	24" X 48"		000				0000	0
Day-Brite Lighting Div.	"09 X "09		0	2	2	4	0	0
Donn Products Inc.	.09 X09		0	1	2	4	00	0
Flangeklamp Ind.	,,09 X ,,09	**	000	N/A	N/A	N/A	000	0
Guth Lighting Div.	,,09 X ,,09		00	2	8	4	000	0
Interior Systems Div. Sunbeam Lighting Co., Inc.			0	N/A	N/A	N/A	-O-	
Johns-Manville Corp.								
Holophane Ceiling & Lighting	,09 X ,09	常		-1	2	4		
National Ceiling & Lighting	* '09 X09	2		-1	1	-		
Lok Ceiling Systems	*		0000	3	3.5	9	000	
National Ceiling	09 X09	*	000	1.5	2,15	4.3	0	0
						蒙	V Yes	Preferred
						*	0	Alternate
				3:20	Data	Summa	Summary 39	

** Yes * Varies 3:20 Data Summary 39

product data: ACOUSTICS ACOUSTICS CEILING CEILIN	USTICS				FIRE PROTECTION	FECTIO		
CEILING/ FLOOR RATING TEST R	Commence of the Commence of th						z	
TEST	CEILING/	G/ ROOF	FIRE . RESISTANCE	E . ANCE	TLAME SPREAD	Æ EAD	SMOKE	KE
•	RATING	TEST	RATING	TEST	RATING	TEST	RATING	TEST
(STC)	(SIC)							
Acousti Engineering Co. 43	43			+	25	-	10	-
35–39	40-44		to 4hrs		Class25		Class25	
The Celotex Corp. 35-39 35-39	35-39		1-2hrs		0-25		0-15	
Chicago Metallic Corp.	•		2hrs		0		0	-
Day-Brite Lighting Div. 41		\Diamond	2hrs					-
Donn Products Inc. 37 [37	37		2hrs		25		5	
Flangeklamp Ind.			2hrs		0-25		0	
Guth Lighting Div.						\Diamond		\Diamond
Interior Systems Div. Sunbeam Lighting Co., Inc.								
Johns-Manville Corp.								-
Holophane Ceiling & Lighting		*	2hrs	•				
National Celling & Lighting 39			2hrs					
Lok Ceiling Systems				\Diamond				
National Ceiling 35-39 35-39	35-39		2hrs	18.00 18.00				

subsystem	GENERAL INFORMATION CEILING	GENERAL INFORMATION	CEILING MATERIAL	ATERIAL
lighting/ceiling	Applied directly to structure. Suspended Integrated with lighting Integrated with HVC system Integrated with partitions Integrated with partitions	Incandescent Fluorescent Luminous ceiling Exterior lighting Safety lighting (fire, exit)	STRUCTURE	FINISH
National Gypsum Co.	0			
The Soundlock Corp.	00000	0		Steel, aluminum
Syncon	00000	00	Galvanized steel	Enameled steel
United Lighting & Ceiling Corp			1	1
Cylindricell 5000 AC	00000	0		Acrylic
Light-Lok 5005 AC Prisma-Lok 5007 AC Cubecell 6000 AC	0 0 0	0-0-		Acrylic
Dimension-Plus 9000 Dimension-5 9500	00000	0-0-0		Acrylic

© Preferred.
O Alternate

3:20 Data Summary 41

			Partition accommod at any location	Ŧ		0				0		rred
	only	Jine	Partition accommod on planning module	+	-						0	Preferred
	AIR HANDLING ACCOMMODATIONS	16	Air bar Air handling fixtu Diffuser Other	+		0000	0		8	-	•	
	PER	AIN .	200 footcandles	1					3	8	е	Nov *
	40W TUBES PER PLANNING MODULE	TO MAINTAIN	100 footcandles						2	7	2	
	40W PLANN	10	70 footcandles						-	п	1	
	ASSEMBLY		Flat panel Coffer (3-D) Luminous ceiling Other	+		00	00		8	•	0	
	ø		OF BASIC MODULE	7	-	崇	举		茶	*	*	
	DIMENSIONS	PLANNING				09 X09	09 X09		24" X 24"	24" X 24"	24" X 24"	
subsystem	product data:	lighting/ceiling	S S	No. 1. Company	National Gypsum Co.	The Soundlock Corp.	Syncon	United Lighting & Ceiling Corp	Cylindricell 5000 AC	Light-Lok 5005 AC Prisma-Lok 5007 AC Cubecell 6000 AC	Dimension-Plus 9000 Dimension-5 9500	

* Varies O Alternate 3:20 Data Summary 42

subsystem		ACOIL	A COLIST I CS				NOTECTION	TECTTO	2	
gring/com	CEILING/ FLO	NG/ FLOOR	CEILING/	G/ ROOF	FIRE RESISTANCE	E . ANCE	FLAME SPREA	FLAME SPREAD	SMOKE	KE
	RATING	TEST	RATING	TEST	RATING	TEST	RATING	TEST	RATING	TEST
	(SIC)		(SIC)							
9										
National Gypsum Co.	70-7			+		-		10		15
The Soundlock Corp.	40						15	S. Carrie	0	
Syncon										-
United Lighting & Ceiling Corp										
Cylindricell 5000 AC							0-70		200	
Light-Lok 5005 AC Prisma-Lok 5007 AC Cubecell 6000 AC							0-70		200	
Dimension-Plus 9000 Dimension-5 9500							0-70		200	
			Cond	Conducted b	Conducted by outside			Plan Not	Planned or desired	estred
			•	-	3:20 Data	a Summary	43			

manufacturers of electric/electronic distribution subsystems

MANUFACTURER	CONTACT	PRODUCT
Electrical Product Div. Midland-Ross Corp. P. O. Box 1548 Pittsburgh, PA 15233	Robert Beatty James Pavlot (412) 322-2345 FTS: (412) 644-3311	Kindorf Channel
Executone, Inc. 29-10 Thomson Avenue Long Island City, NY 11101	J. Kahn A. Bell (212) 392-4800 FTS: (212) 460-0100	T-900 Keyphone VHF & Low Frequency Pocket Page Complete Sound System Hospital Audio Visual Comm. Nursecom Nursecall Registat Locate/Reply - Intercom 100 series 600 series 700 series 411 series
Granco Steel Product Co. P. O. Box 40526 Houston, TX 77040	R. L. Casten (713) 644-1834 FTS: (713) 226-4011	Cellular Floor
Microflector Co., Inc. 40 Bayview Avenue Inwood, L.I., NY 11696	Milton Liberman (516) 371-1111 FTS: (212) 460-0100	Compatible Modular System
Monaco Enterprises P. O. Box 14129 Spokane, WA 99214	Eugene A. Monaco Clarence A. Monaco (509) 926-6277 FTS: (509) 456-0111	225 SS711M CA-42 "Echo 500" C~100 CSC-338 FAVAPA-1

manufacturers of electric/electronic distribution subsystems

	••	10.		26101
MANUFACTURER	Walker/Parkersburg	Div. of Textron Inc.	P. O. Box 1828	>

James E. Croom Charles T. Flackbarth (304) 485-1611 FTS: (304) 422-8551

Walkerduct-Underfloor Duct & Surface Raceway

PRODUCT

CONTACT

The Wiremold Co. West Hartford, CT 06110

W. E. Parks (203) 233-6251 FTS: (203) 244-2000

Wiremold Utility Service
Columns
ODS
Wiremold Metal Surface
Raceways
Plugmold Multioutlet
Tele-Power Poles

subsystem	FUNCTIONAL SYSTEMS	RELOCATABLE BY
electric included electronic included electronic oprional ()	- Audio communications - Clock - Closed circuit TV - TV antenna - Fire detection - Dial access programs - Dower distribution - Other	- Manufacturer's personnet - Licensed electricians - Owner's maintenance staff
Electrical Product Div. Midland-Ross Corp.		**
Executone, Inc.	0	
Granco Steel Product Co.	•00000000	**
Microflector Co., Inc.		茶茶茶
Monaco Enterprises	*	*
Walker/Parkersburg Div. Textron Inc.	0000	华华
The Wiremold Co.		
ODS Systems	0	**
Plugmold Multioutlet Systems	0000	**
Tele-Power Poles	0000	**
Metal Surface Raceways		**
Utility Service Columns	* • • • • • • • • • • • • • • • • • •	茶茶茶

Subsystem fabrication is only one part of the building production process. Site assembly of buildings and replacement of obsolete subsystems or their components are also extremely important. For construction economy and maintenance of the entire building, assembly and replacement must also be industrialized, i.e., those parts of the process must be repetitive and efficiently organized. Subsystems must therefore be designed and manufactured to be compatible with other subsystems used in construction of the same buildings. They must be capable of interfacing in the building without on-site modification and extensive use of handcraft methods.

The following are charts indicating subsystems' interfaces, compatibation patibility levels, and subsystem manufacturers' product compatibility. An asterisk (*) following a manufacturer's name indicates that he is not included in this edition of the catalog due to lack of response or information.

mandatory subsystems interfaces

C

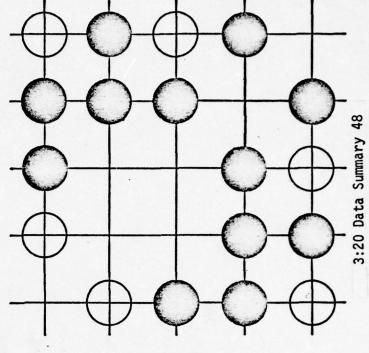
Optional

structure
partitions
heating, ventilating &
cooling
lighting/ceiling

structure
partitions
heating, ventilating &

heating, ventilat cooling electric/electronic

lighting / ceiling



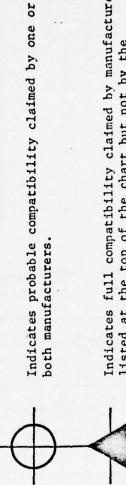
compatibility legend



Indicates previously used together as obtained from BSIC/EFL Systems Building Data Bank.



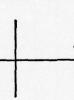
Indicates full compatibility claimed by both manufacturers.



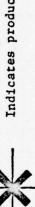
Indicates full compatibility claimed by manufacturer listed at the top of the chart but not by the manufacturer listed at the side of the chart. both manufacturers.



Indicates full compatibility claimed by manufacturer listed at the side of the chart but not by the manufacturer listed at the top of the chart.



Indicates compatibility not known or data missing.



Indicates products specified incompatible.



structure

Bethlehem Contracting Co. Houdaille-Duval-Wright Inland-Ryerson Contracting Co.

Macomber, Inc.

Romac Steel Co., Inc. Steel Fabricators Inc.

Anthes-Canron *

Butler Manufacturing Co.

Haven-Busch Co. * Le Jeune * Marshall Erdman & Assoc. *
Standard Bldg. Systems *
Vulcraft *

20 3:20 Data Summary Acme Industries Inc. The Trane Co. * Poole & Kent * Modine Manufacturing Co. * Martin Mechanical * Mammoth Div., Lear Siegler Inc. III Environmental Products Div. HIII York * F. W. Harris * * qmeT A Isid Day Wight * American Air Filter Co., Inc. Miller/Picking Corp. Lennox Industries, Inc. Dunham-Bush, Inc. Carrier Air Conditioning Co. heating, ventilating, & cooling

compatibility: subsystem

and cooling ventilating, structure heating,



having incomplete or missing compatibility information. Respondent manufacturers

STRUCTURE

C/O/A Corp. Coronis Building Systems, Inc. Cuckler Steel Span Co. Bellaire Products, Inc. Canam Hambro Systems, Inc.

Johns-Manville Corp.
Kirby Building Systems, Inc.
Lone Star Industries Harter Conc. Prod. Inc.

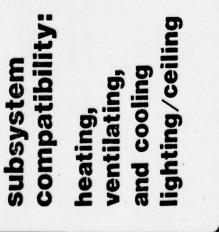
Rocky Mountain Prestress, Inc. McCaw Industries
Mesco Metal Buildings Corp.
Mitchell Engineering Co.
Pascoe Steel Corp.
Precast Concrete Co., Inc.
Precast Systems, Inc.

Structural Foam Inc. Spancrete Co. Steel & Span Inc.

Texas Inc. Trus Joist Corp. Unistrut Corp, Moduspan Div Western Precast, Inc.

HEATING, VENTILATING & COOLING

Airtemp Div., Chrysler Corp. Borg-Warner Corp. McQuay Div., McQuay-Perfex Inc.



Varitec * Owens Corning Fiberglass Corp. Luminous Ceilings * 赫 Keene Corp. * H The E. F. Hauserman Co. Ceiling Dynamics, Inc. 52 * 3:20 Data Summary Conwed Corp. * Butler Manufacturing Co. 栅 Bonitz * * .oo nosndol gainnA United Lighting & Ceiling Corp. Syncon LOK Ceiling Systems, General Electric Co. National Ceiling Johns Manville Co. Johns-Manville Corp. Inland-Ryerson Construction Prod. Co. Guth Lighting Div., Sola Basic Industries Flangeklamp Donn Products Inc. Day-Brite Lighting Div. Emerson Electric Chicago Metallic Corp. The Celotex Corp. Armstrong Cork Co. 纏 Acousti Engineering Co. of Florida lighting/ ceiling Barber-Coleman Co., Env. Systems Div. McQuay Div, McQuay - Perfex Inc heating, ventilating & cooling American Air Filter Co., Inc. Airtemp Div., Chrysler Corp. Carrier Air Conditioning Co. Lennox Industries, Inc. Acme Industries, Inc. Miller/Picking Corp. Dunham-Bush, Inc. Air Factors *

Anemostat *

subsystem compatibility: heating, ventilating, and cooling lighting/ceiling

heating, ventilating & cooling
Chicago Metallic Corp. *
Day Night *

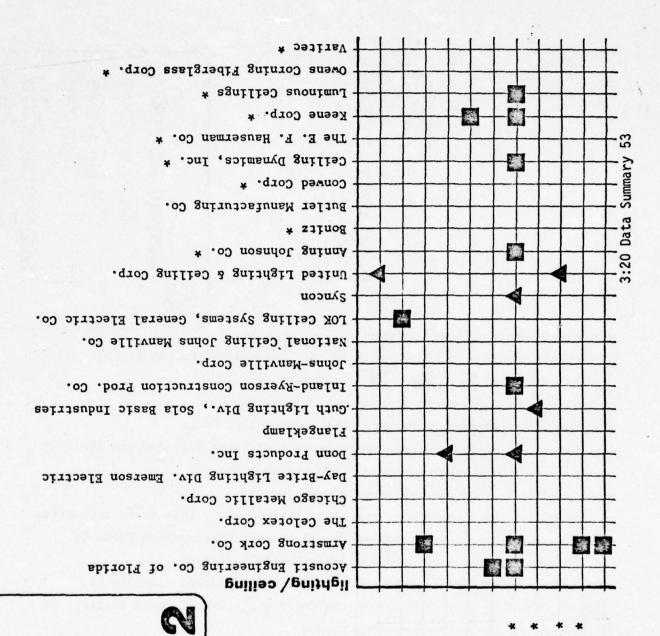
Dial A Temp *

Donn Products, Inc.

F. W. Harris *
Hill York *

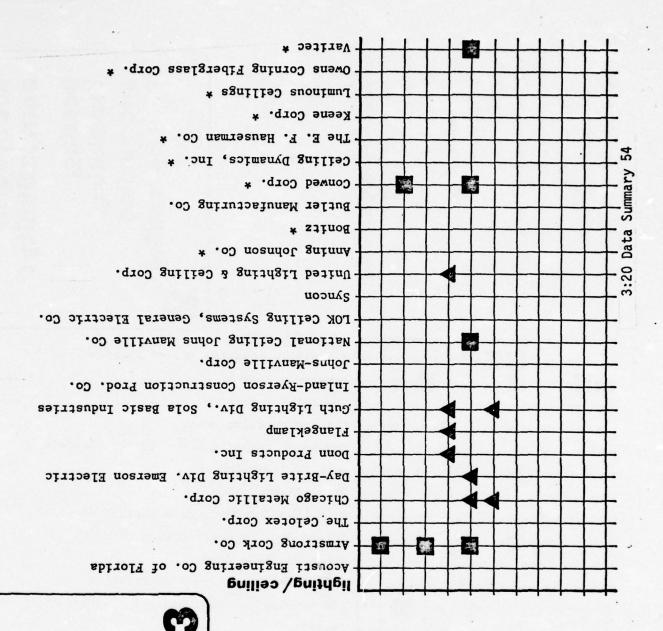
ITT Environmental Products Div.
Krueger Div., Lear Siegler Inc.
LOK Ceiling Systems, G. E. Co.
Marmoth Div., Lear Siegler Inc.

Marshall Erdman & Assoc.



subsystem compatibility: heating, ventilating, and cooling lighting/ceiling

heating, ventilating & cooling
Martin Mechanical *
Modine Manufacturing Co. *
Poole & Kent *
Titus *
The Trane Co. *
Tutle & Balley *



compatibility: subsystem

lighting/ceiling and cooling ventilating, heating,



having incomplete or missing compatibility information. Respondent manufacturers NOTE:

HEATING, VENTILATING & COOLING

Borg-Warner Corp.

LIGHTING/CEILING

Interior Systems Div., Sunbeam Lighting Co., Inc. National Gypsum Co. The Soundlock Corp.

subsystem compatibility: lighting/ceiling structure

stucture
Bethlehem Contracting Co.

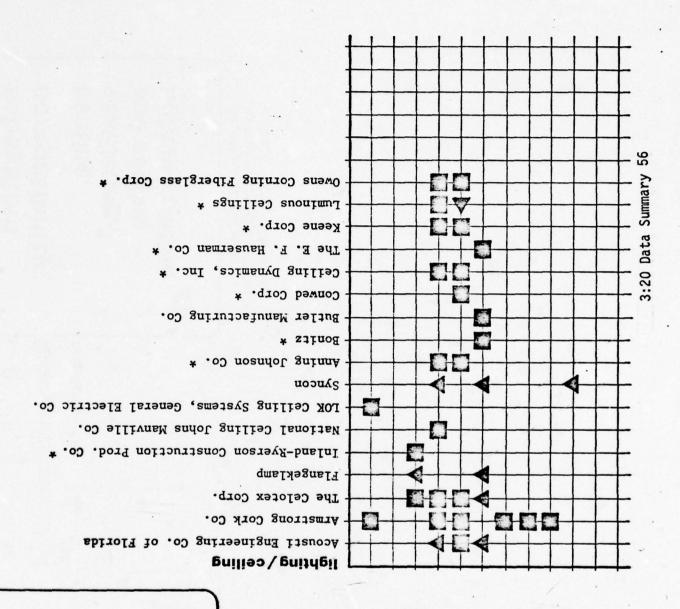
Inland-Ryerson Contracting Co. Macomber, Inc.

Houda 111e-Duval-Wright

Romac Steel Co., Inc. Butler Manufacturing Co.

Haven-Busch Co.

Le Jeune *
Standard Bldg. Systems *
Syncon *



subsystem compatibility:

lighting/ceiling structure



NOTE: Respondent manufacturers having incomplete or missing compatibility information.

STRUCTURE

Bellaire Products, Inc.
Canam Hambro Systems, Inc.
C/O/A Corp.
Coronis Building Systems, Inc.
Cuckler Steel Span Co.
Harter Conc. Prod. Inc.
Johns-Manville Corp.
Kirby Building Systems, Inc.
Lone Star Industries
McCaw Industries
McCaw Industries
Mesco Metal Buildings Corp.

Lone Star Industries
McCaw Industries
Mesco Metal Buildings Corp.
Mitchell Engineering Co.
Pascoe Steel Corp.
Precast Concrete Co., Inc.
Precast Systems, Inc.
Rocky Mountain Prestress, Inc.

Spancrete Co.
Steel Fabricators Inc.
Steel & Span Inc.
Structural Foam Inc.
Texas Inc.
Trus Joist Corp.
Unistrut Corp, Moduspan Div
Western Precast, Inc.

LIGHTING/CEILING

Chicago Metallic Corp.
Day-Brite Lighting, Div. Emerson
Electric
Donn Products Inc.
Guth Lighting Div., Sola Basic
Industries
Interior Systems Div., Sunbeam
Lighting Co., Inc.
Johns Manville Corp.
National Gypsum Co.
The Soundlock Corp.
The Soundlock Corp.

subsystem compatibility: lighting/ceiling interior partitions

partitions

Adanlock Jamestown Corp.

Advanced Equipment Corp.

Donn Products, Inc.

Flangeklamp of California

Glenn Obrien Movable Partition Co., Inc.

Hough Mfg. Corp.

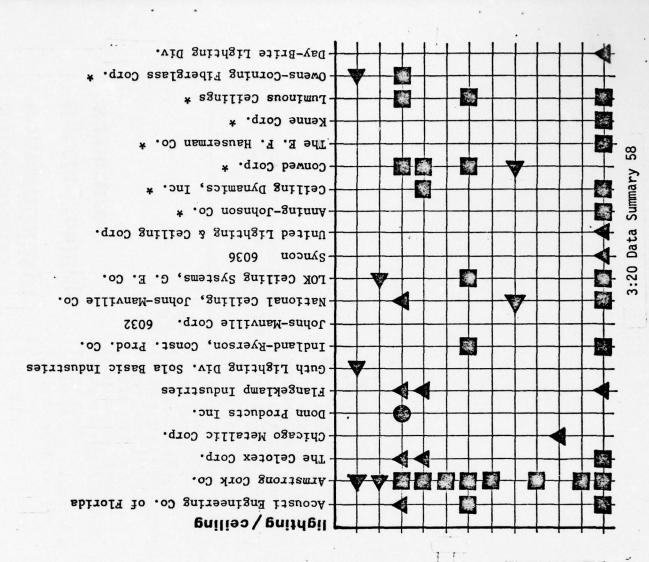
Keene Corp.

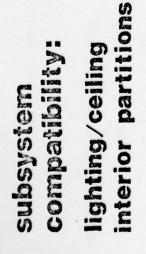
Kwik Wall Div., Capitol Wood Works

Aetna Wall *

Chicago Metallic Corp. *
Curtis Partitions Corp. *

he E. F. Hausermann Co. *







Day-Brite Lighting Div. Owens-Corning Fiberglass Corp. Luminous Ceilings * Kenne Corp. * The E. F. Hauserman Co. * Conwed Corp. * Ceiling Dynamics, Inc. * Anning-Johnson Co. * United Lighting & Ceiling Corp. 9809 Syncon LOK Ceiling Systems, G. E. Co. National Ceiling, Johns-Manville Co. Johns-Manville Corp. Indland-Ryerson, Const. Prod. Co. Guth Lighting Div. Sola Basic Industries Flangeklamp Industries Donn Products Inc. Chicago Metallic Corp. The Celotex Corp. 0-0-0-0-0-0 Armstrong Cork Co. Acousti Engineering Co. of Florida lighting / ceiling

> partitions Gold Bond Bldg. Prod.

Kaiser Gypsum Co. * Malone Products Corp.

Mecco Chalk Board Modernfold * Penn Metal Products *
Virginia Metal Products Div. Gray Mfg. Co.
Westeel - Roscoe *

3:20 Data Summary 59

compatibility: subsystem

interior partitions lighting/ceiling



having incomplete or missing compatibility information. Respondent manufacturers NOTE:

INTERIOR PARTITIONS

Airwall Div. of Richard-Wilcox Mfg.

Alliance Wall Corp. Bellaire Products Inc. The Brewster Corp. H. L. Birum Corp.

Precast Concrete Co., Inc. Rockaway Metal Products Corp.

Saturn Mfg. Corp. Unistrut Corp. United States Gypsum Co. Vaughn Interior Walls Inc. Roper Eastern

LIGHTING/CEILING

Interior Systems Div., Sunbeam Lighting Co. The Soundlock Corp.

subsystem compatibility:

lighting/ceiling electric/electronic 17.00

lighting / ceiling

Acousti Engineering Co. of Florida

Armstrong Cork Co.

The Celotex Corp.

Chicago Metallic Corp.

Day-Brite Lighting Div. Emerson Electric

Donn Products Inc.

Guth Lighting Div. Sola Basic Industries

Johns-Manville Corp.

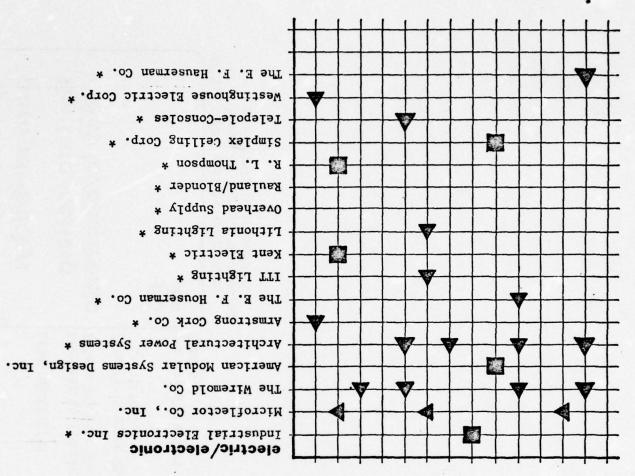
LOK Ceiling Systems, G. E. Co.

United Lighting & Ceiling Corp.

Conwed Corp. *

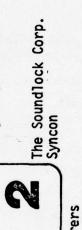
Owens-Corning Fiberglass Corp. *

National Ceiling, Johns-Manville Co.



subsystem compatibility:

lighting/ceiling electric/electronic



NOTE: Respondent manufacturers having incomplete or missing compatibility information.

LIGHTING/CEILING

Flangeklamp Industries Inland-Ryerson, Const. Prod. Co.

Interior Systems Div., Sunbeam Lighting Co.

ELECTRIC/ELECTRONIC

Electrical Products Div., Midland
Ross Corp.
Exectone, Inc.
Granco Steel Products Co.
Monaco Enterprises
Walker/Parkersburg

subsystem compatibility: electric/electronic interior partitions



interior partitions
Advanced Equipment Corp.
Hough Mfg. Corp.
Kwik Wall Div., Capitol Wood Works
The E. F. Hausermann Co. *

à

Microflector Co., Inc.
American Modular Systems Design, Inc. *
Architectural Power Systems *
Engineers Collaborative *
Kent Electric *

electric / electronic

subsystem compatibility:

electric/electronic interior partitions



NOTE: Respondent manufacturers having incomplete or missing compatibility information.

ELECTRIC/ELECTRONIC

Electrical Products Div., Midland
Ross Corp.
Exectone, Inc.
Granco Steel Products Co.
Industrial Electronics Inc.
Monaco Enterprises
Walker/Parkersburg
The Wiremold Co.

INTERIOR PARTITIONS

Adanlock Jamestown Corp. Airwall Div. of Richard-Wilcox Mfg.

Alliance Wall Corp.
Bellaire Products Inc.
The Brewster Corp.
Donn Products, Inc.
Flangeklamp of California

Inc. H. L. Birum Corp.

Glenn Obrien Movable Partition Co.,

Keene Corp.
Precast Concrete Co., Inc.
Rockaway Metal Products Corp.
Roper Eastern

Saturn Mfg. Corp. Unistrut Corp. United States Gypsum Co. Vaughn Interior Walls Inc.

appendix A

INSTRUCTION SHEET

for completing this questionnaire.

- 1. Use a pen or type your answers.
- For questions requiring a yes/no answer place an X in the appropriate box. For other questions place an X in an applicable box.
- TECHNICAL QUESTIONS
 Ouestiens of a technical nature are written on a gray background. Answer gray questions only if the information is readily available to you.
 - 4. SEVERAL DIFFERENT PRODUCTS
 If you manufactive of supply several subsystems with different characteristics, fill out one page of the questionnaire for each subsystem that you wish to be considered. Additional pages can be provided by CERL (rall collect 217-352 6511) or you may duplicate tnem yourself.
- MATERIALS
 As to building materials is provided below for your use in answering questions entitled "Materials." If your product is made of a material not listed here, enter the name of the material you use. There is room to enter 2 materials for each element.
- WOOD METALS MASONRY

PLASTICS/MISC.

- Douglas fir South, pine West, hemlock Oak Fir plywood Perticle board Hardboad Mahog, vaneer Mahog, vaneer Cedar shingle Struct. steel
 Stainless stl.
 Aluminum
 Copper
 Wrought iron
 Cast iron
 East iron
 East iron
 East iron
 East iron Brick Concrete Stone Terazzo Gravei Appsum board Appsum board Appsum board Terra-cotta
- P. V.C.
 Vinyl sheet
 Vinyl sheet
 Vinyl sheet
 Uethane foam
 Rigidf therglass
 Fiberglass batts
 Celulose batts
 Poured sheet
 Asphalt shingles
 Rolled asphalt
 Tar
 Wall paper
 Wall paper
 Porcelain
 Paint

- 6. PERFORMANCE RATINGS AND TESTS
- Soveral questions ask you to indicate how your product has been tested. The choice of which box to chuck is explained below.
- your subsystem has been tested by independent testing apenery such as U.L., NBS, or ASTM. OR testing abenery such as C. Index product is of a conventional construction for which standard test results are known ... conducted by outside agency
- you have conducted formal performance tests within your own organization, OR the manufacturers of the subsystem that you buy has conducted similar tests.
 - you desire to have your product tested or plan to have it tested

... planned or desired

- testing is not required or applicable or not economically feasible at this time
- b. Fire Protection Tests

... not planned

- Fire resistance. Answer in hours of fire resistance as specified by NFPA No. 251.
- Flame spread. Answer in numbers relating to the standard, select grade red-oak flooring = 100 tested in accordance with NFPA No. 255.
 - Smote developed. Answer in optical density or light absorption tested in accordance with NFPA No. 255.
- c. Acoustical Tests
- STC \simeq answer will be the Sound Transmission Classification in db as determined by test outlined in ASTM E90-61T.
- Conductivity ("U") U-Values are in BTU/hour/sq ft/degree ? difference at 15 MPH outside wind velocity

MANUFACTURER PROFILE

3 S S S S S S S S S S S S S S S S S S S	MANUFACTURER PROFILE	ROF	ILE				OMB 49-R0412	OFFICE USE ONLY Question No. 204 5.7	
SERVICES SER	1. Name of individual to contact for more detailed information:								
SERVICES SERVICES The National Process of the Management of the National Process of the National Pro	пате			state	a	hone			
SERVICES SERVICES State with carboning and the controlled building partners SERVICES State with carboning and the controlled building partners SERVICES State with carboning and controlled building partners State of building services State of buil	a. Procurement			-					
SERVICES At PRODUCTS At Production specific consistency and the state of control and the st	b. Technical			1					7
Little desires broke roof from evaporal in Check all that abody. Single desires building systems The everage of correlation building systems The everage of building systems The everage of correlation building systems The everage of correlati	2. SERVICES								2
The control to building systems B Chree all that side v Variable Chree all	Indicate what activities your firm engages in: (Check all that apply.)			-					-
1	a. Design of complete building systems		e	nateh as	pai	-	. Relocatable	1. Town house	1
1	b. Manufacture of complete building systems	•	one etaldo ne	papi/ edas	ddns		. Temporary	m. High rise apartment	1
1 1 2 2 2 2 2 2 2 2	c. Site erection of complete building systems	5	d se	pjos	10u	-	i. Classroom	n. Duplex	1
Second and the control of building components 13 Structural system 14 Structural system 15 Structural system 15 Structural system 15 Structural system 16 Structural system 17 Structural system 18 Structural system 19 Structural syst	d. Design of building components	=					. Maintenance	o. Mobile home	+
1 Structural assertion miningerment 14 C. Exercity walls 15 Structural assertion miningerment 14 C. Exercity walls 15 Structural assertion miningerment 15 Structural assertion miningerment 15 Structural assertion 15 Struct	e. Manufacture of building components	12	a. Foundations			18 51	Laboratory	p. Dormitory	1
15 C. Exercis Mails of Control Parish Control P	f. Installation of building components	13	b. Structural system				J. Medical	q. Hotel/Motel	1
15 Participate Participate 15 Participate 15 Participate 15 Participate	g. Construction management	4					. Warehouse	r. Dining hall	+
The color of the	h. Sales of building system to erector	51	d. Roofing system			10-63	Office		1
DELIVERY DELIVERY DELIVERY DELIVERY O Plumbing system B 21 S there a maximum economic distance between your content gets of production facility and the job site? S there a maximum economic distance between your colored solution is a production facility and the job site? S Colored system B 21 S Theody by James are a production facility and the job site? S Theody by James are production facility and the job site? S Theody by James are a production facility and the job site? S Theody by James are a power and a strated additional codes. S Theody and available now? S Theody available now? S Theody available now? S Theody available now	i. Site work	16	e. Partitions			19-67	Gymnasium	t. Chapel	1
DELIVERY DELIVERY I Electrical System I Electric	i. General contracting	17	f HVAC			8.71	J. Other (specify)		1
13-16 13-			g. Plumbing system		7	6.78/BK	. Other (specify)		4
18-21 18-21 Celling system L. Celling system 22-26 What is the preferred method of selling your product to the government? 22-26 What is the preferred method of selling your product to the government? 22-26 What is the preferred method of selling your product to the government? 22-26 What is the preferred method of selling your product to the a. BOCA Building Code 22-26 What is the preferred method of selling your product to the a. BOCA Building Code 22-26 What is the preferred method of selling your product to the a. BOCA Building Code 23-31 23-34 24-36 D. Through any building developer 25-36 C. Through a franchized desirer C. Through any building materials of a. National Plumbing Code C. Codes C. Through a franchized desirer C. Through any building materials of a. National Plumbing Code C. Codes C. Through a franchized desirer C. Date of the following of through a franchized desirer C. Date of the following of through a franchized franchized des	3. DELIVERY		h. Electrical system	1		4 DUP	7. CODES & ST	TANDARDS	
19-26 Indicate the effect of the following codes or standards on the use of your product. 5. PROCUREMENT 22-26 What is the preferred method of selling your product to the government? 22-26 Check all that apply 3-31 a. Directly 22-26 b. Through a franchized dealer 33-41 c. Through a franchized dealer 4. Southern Building Code 5. Other specify) 4. Other specify) 5. Other specify) 6. Other specify) 7. Other specify) 7. Other specify)	a la thora a monitorina policina distance hattance union		i. Lighting system	-		-12			+
22-26 Covernment? 22-26 Covernment? 22-36 Covernment? 23-36 D. Through any building developer 23-36 D. Through another manufactuer of building materials or 24-46 Supplies 25-71 Through another manufactuer of building materials or 25-72 Supplies 26-72 Supplies 27-73 Supplies 27-74 Supplies 27-75 Supplies 27-75 Supplies 27-76 Supplies 2	headquarters or production facility and the job site?		i. Ceiling system	-	Ī		indicate the effect of the	he following codes or	
22-36 Cordes What is the preferred method of selling your product to the government? 22-36 (Check all that apply.) 22-36 (Check all that apply.) 32-36 (Check all that apply.) 32-36 (Directly a function of selling your product to the government? 32-36 (Directly a function of selling your product to the br. Uniform Building Code 32-36 (Directly a function of desier and a function of design and a function of desig		18-21			1		(Check all that apply.)	_	
What is the preferred method of selling your product to the a. BOCA Building Code accentent? 22-26 (Check all that apply.) 27-31 a. Directly 27-31 a. Directly 27-31 a. Directly 27-34 b. Through any building developer 27-35 b. Through a franchized dealer 37-41 c. Through a franchized dealer 42-46 d. Through another manufacturer of building materials or g. National Electrical Code augmentation and the franchized dealer 42-46 d. Through another manufacturer of building materials or g. National Plumbing Code 42-46 d. Through another manufacturer of building materials or g. National Plumbing Code 42-46 d. Aste A Fire Code 42-46 d. Aste A Fire Code 4-46 d. Other (specify) 47 f. Other (specify)								simiec	
if more than 5 attach additional codes.) 22.26 (Uncerted in the apply.) 27.31 a. Directly 32.36 b. Through any building developer 37.41 c. Through a franchized toaler 42.46 d. Through a franchized toaler 42.47 d. Through a franchiz	11		What is the preferred method of selling your product	t to the	_		a. BOCA Building Code		+
27-31	(if more than 5 attach additional codes.)	22.26	(Check all that apply.)				b. Uniform Building Co	de	
18 developed and uvailable now? 2.36 b. Through any building developer 2.46 d. Through a franchized dealer 3.741 c. Through a franchized dealer 4.246 d. Through a franchized dealer 5. Through an other manufacturer of building materials or 5. Supplies 6. Caralog 6. Caralog 7. Other (specify)		27-31			Ì	1	c. National Building Co	apo	-
s your product combletely ves no developed and wailable now? 42-46 42-46 42-46 42-46 42-46 42-46 42-46 42-46 42-46 43-49 43-		32-36	b. Through any building developer			8	d. Southern Building C	ode	+
ls your product completely yes no careful and available now? 1. Other (specify) 20 1.		37-41	c. Through a franchized dealer			6	e U.L. Codes		+
se your product completely vgs no developed and available now?	<u></u>	42-46		ials or		8	f. National Electrical C	ode	+
f. Other (specify)	ls your product completely		Supplies		Ï		g. National Plumbing C	ode	+
		4	f. Other (specify)		Ï	a	h. AFPA Fire Code		+
							. DOD Manual of Con	istruction	1

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1. What was your volume of business last year in industrialized buildings?

2. Have your buildi been employed in built ing for FHA or VA ins Yes.

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Ouestion No. 204 OFFICE USE ONLY

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1	
1	

G. Have your building (Check all that apply US Army US Air Force	 Have your building products or services been employed in any facilities for: (Check all that apply.) 	U.S. Navy MC G.S.A.	H.U.D. Other Federal	
	G. Have your build (Check all that appl	US Army	US Air Force	

TS
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PROJEC
2
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Please complete blocks a j describing the ten most recent projects using your products. (Note: Include only projects completed or under construction.)

a. Project title	f. Projecttitle	-
Gross area (sq ft) Location zip code	Gross area (sq ft) Location zip code	
Owner	Owner	
Owner's address.	Owner's address	
City State Zip code	CityStateZp	Zip code
b. Project title	g. Project title	
Gross area (sq ft)Location zip code	Gross area (sq ft)Location zip code	
Owner	Owner	
Owner's address	Owner's address	
City State Zip code	City State Zip code_	de
c. Project title	h. Project title	
Gross area (sq ft)Location zip code	Gross area (sq ft)	
Owner	Owner	
Owner's address	Owner's address	
City State Zip code	CityStateZip code_	de
d. Project title	i. Project title	
Gross area (sq ft)	Gross area (sq ft) Location zip code	
Owner	Owner	
Owner's address	Owner's address	
CityStateZip code	City State Zip code.	de.
e. Project title	j. Project title	
Gross area (sq ft)	Gross area (sq ft)	
Owner_	Owner	
Owner's address	Owner's address	
City State Zip code	City State Zip code_	4

8-10 11-13

ton bannald

bataubnoa aauori-ra

conducted by outside agency

esistance in hours

STRUCTURE

3 dimensional box 🗆 structural panel 🗀 frame and infill 🗀 other (specify)	and infill other	inei 🗆 frame a	Structural pa	3 dimensional box	
ovided: (Check only one; fill out duplicate sheet for other types.)	ne; fill out duplicate :	sed: (Check only o	URAL TYPES provid	1. Indicate STRUCTURAL TYPES provided: (Check only one; fill out duplicate sheet for other types.)	-

OFFICE USE ONLY

Question No. 204

OMB 49-R0412

98	
other (specify)	
frame and infill	
structural panei	Me
3 dimensional box structural panel trame and infill otr	2 DIMENSIONS

2. DIMENSIONS	S							5. LOADING			
	Max	Maximum	Opti	Optimum	Minimum	-			Maximum	A = span/240	A = Span!
Dimension	feet	ė.	feet	in.	feet	N.	67.76 77.78/BK	LIVE LOAD	pounds/eq ft	pounds/saft	pounds/so
a. Primary span							6-9	a. Floor*			
b. Secondary span							10.21	b. Roof			
c. Floor to floor height							22.33	c. Wind load			
d. Floor to ceiling							34-45	d, Suitable for	0	1 2	
e. Cantilever							46.57	earthquake zone	3		
f. Planning module (smallest increment)							69-85	Method of resting lateral forces: (Check all that apply.) a. Moment frame	Method of resisting lateral forces: (Check all that apply.) a. Moment frame	of that apply.)	
g. Clear area		sq ft		sq ft		sq ft	70-78 79, 80/03	b. Sheerwalls			
h. Gross area		sq ft		sq ft		sq ft	5-13	c. Cross bearing walls			
i. Roof pitch		in 12 ft		in 12 ft		in 12 ft	14-16	d. Other (specify)			
j. Total height		stories		stories		stories	17.22				
							10	6. FIRE PROTECTION*	FCTION*		
2 MATERIALS											

72 73 74 75.8/8K 79.80/04

45-53 54-62 63-70

Structural Member Material (See list on instruction sheet.) 23-26 a. Column 27-30 c. Floor 31-34 d. Roof 35-38 a. Column	Member Material (See list on instruction sheet.) 23.26 0 walls 27.30 31.34				
0 walls 27.30 27.3	23.26 g walls 27.30 31.34 35.38	Structural Member	Material (See list on instruction sheet.)		
27-30 gwalls 31-34 35-38	27.30 g walls 27.30 31.34 31.34	a. Column		23-26	
31-34	31.34	b. Bearing walls		27-30	
35-38	85:38	c. Floor		31-34	Structural Mem
		d. Roof		35-38	a, Column

a. Column	23.26
b. Bearing walls	27.30
c. Floor	31-34
d. Roof	35.38
4. FOUNDATIONS (Check all that apply.)	
What foundation types are appropriate?	39
a. Concrete spread footing	9
b. Caissons or piles	141
c. Poured concrete walls	24
d. Concrete block walls	43
e. Piers and grade beams	3

a-4

*Performance ratings and tests are explained on the instruction sheet.

a-5

STRUCTURE					OMB 49-R0412	OFFICE USE ONLY Question No.	4	
1. SUBSYSTEM NAME/MODEL								
2. GENERAL INFORMATION	TION		4.00	4. СОМРАТІВІLІТУ		A compatible nerface between two subsystems must not require on site modification.	erface bety must not n	veen
Mechanical access—the largest duct capable of passing through the primary members: rect round secondary members rect round	capable of passing	20.25 26.31		Identify products with which your structural system is	l system is	Jediego1	poli eldaeq	estedio Villidued
 b. Does your structure have a vertical planning module increment? yes 	anning module increment?	33		name of manufacturer	product name/model	pasn :: 3	Deta	com
c. Exterior wall is a part of your subsystem and acts as a supportive structural deferrent is a part of your subsystem but provides no structural purpose can be supplied with the structural subsystem.	Yes No Opt.	33 36 36	Lighting Ceiing					
		38 b						
3. SUBSYSTEM IMPLEN	EMENTATION		HVAC					TT
Indicate the usual responsibilities of the participants for a	nufacturer ler Mfr. htsctor		Exterior					
typical project (Check all that apply.)	A E							T
Prepare layouts Manufacture/fabricate Purchases		43.46 47.51	F!sctric (optional)					T
d. Site assembly & installation		55:25						Г
								1

76-78/BK 79, 30/06 14 DUP 5-9 71.75 13-15 16-18 19-21 22-24 25-27 Wood Solid Core Class C Fire Door bennelq OFFICE USE ONLY Question No. planned or desired Study No. *Performance ratings and tests are explained on the instruction sheet. Hollow metal OMB 49-R0412 Other (specify) a. Door frames may be (Check all that apply.) befouldings abistud yd ypgage 1: conducted by outside squercy a-6 6. FIRE PROTECTION* STC Aluminum Wood Hollow Care Class B Fire Door 7. ACOUSTICS* 5. OPENINGS b. Door types available c. Smoke developed b. Wall with door c. Non-party wall 8. Fire registance b. Flame spread a. Farty wall Wood 25-28 29-32 33-36 38-49 50-61 62-70 8 2 2 2 2 2 2 X See list on instruction sheet Yes Less than 5 psf 5 psf or more INTERIOR PARTITIONS Feet Maximum Feet 1. GENERAL INFORMATION Module dimensions for prefabricated panels Minimum e. Integrated with plumbing system? c. Integrated with electrical system? d. Integrated with HVAC system? Feet 4. DIMENSIONS 3. STRUCTURAL a. Prefabricated panels? 2. MATERIALS a. Harizontal live land. (Check 'Yes' or 'No') b. Wearing surface b. Load braring? f. Demountable? N.A. Element h. Operable? g. Portable? c. Thickness a. Finish a. Width b. Height

PARTITION	-			OMB 49-R0412	Question No. 204	7 4
1. SUBSYSTEM NAME/MODEL_				0_		
2. GENERAL INFORMATION	NATION	4. COM	4. COMPATIBILITY		A compatible interfact two subsystems must on-site modification.	must ion.
a. Planning module: Horizontal ==	inches	18-20	Identify products with which your partition system is compatible		najA	
b. Relocatability: Rate =lin. ft./manhour	yes No	24.26	name of manufacturer	product name/model		Detaile
Moved by partition mfr. personnel skilled craftsmen owner's maint. staff	n staff	28 Lighting/ Celling				
						-
3. SUBSYSTEM IMPLEMENTATION	EMENTATION	Electric/				
		Electronic				-
indicate the responsibilities of the participants for a typical project (Check all that analy)	Vaner Asnutactu Other Mfr. Contractor	Surgest				
a. Prepare layouts	0	30.35 (optional)				-
b. Manufacture/fabricate		35.38			1	4
c. Purchase		\$ 44				
d. Site assembly & installation		45-48				

Anticipate viiliditegmoo

	H.V.A.C.	OMB OFFICE USE ONLY 49-RO412 Question No. 204	
	1. GENERAL INFORMATION 3. ZONES		
	(Check 'Yes' or 'No')		
	a. Integrated with ceiling system? 28 If your system?	dually controlled zones	
	b. Individually controlled zones?	and the second	43-45
			46, 47
	e. Terminal units?		
	f. Constant volume?	No Nes No	48, 49
	3	Noise Class	25
	controlled)?	ERSION (heating) (Check all that apply.)	
	. Can you provide operating cost information?		5
	2. ENERGY SOURCE (Check all that apply.)		25
			23
	37		2
	b. Natural gas		55
(38		
1	40	Performance ratings and tests are explained on the instruction sheet.	
	41		
	f. Other Ispecify)		
	Caldella		
	PLOINIBING		
	6. GENERAL INFORMATION (Check 'Yes' or 'No') Yes No	(see list on instruction sheet)	
			64 67
	b. Prefabricated "wet module"?		17.89
			76-78/BK 79.80/07
	If you supply a "wet module" Goes it include (Check all that apply.)		14 DUP 5-8
(83		9-12
)	69		13-16
	c. Laundry		167
			25.28 MHO 1973
	25		29-32 F
	f. Electrical distribution 63		SE CE
		a-8	

H.V.A.C.					OMB 49-R0412	OFFICE USE ONLY Question No. Study No.	4	
1. SUBSYSTEM NAME/MODEL					0			
2. GENERAL INFORMATION	NATION		4.	4. COMPATIBILITY		A compatible interface between two subsystems must not require on-site modification.	erface bet must not r	ween
a. Heating Output = MBh b. Caoling Output = tons	lBh nns	56.58 59-61		Identify products with which your HVAC system is compatible		Ajsnoja	viously d together siled eldisedr	ytiliditeqr
d. Air Volume =cfm/unit	unit	89-59		name of manufacturer	product name/model			_
e. Unit Location: Rooftop	Yes No Optional	69 07	Structure				+	
Equipment space		FI						
Other (specify)		7) cristici				+	
3. SUBSYSTEM IMPLEMENTATION	EMENTATION		Ceiling				-	
Indicate the usual responsibilities of	ift.		Electric/ Electronic continual)					
the participants for a typical project (Check all that apply.)	Owner Manufa Other M Contrac							
a. Prepare layouts b. Manufacture/fabricate		73-78 79, 80/09)
c. Purchase		9-13						
d. Site assembly & installation		14-17						

(CEILING			OMB OFFICE USE ONLY 49-RO412 Question No.	
	1. GENERAL INFORMATION (Creeck all that apply.)	-	4. DIMENSIONS		
	a. Applied directly to the structure	33	Planning Module		_
	b. Suspended	8	Basicin. X	ë.	23-28
	C. Integrated with lighting system	35	Subdivisions of the basic module		59-64
	d. Integrated with HVAC system	36	in. X in.	and/orin, Xin.	65-70
	e. Integrated with partition system	37	5. FIRE PROTECTION		
	f. Provides access to concealed services	**		Performance tests (check one)	T
	2. MATERIALS (See list on instruction sheet))(_		you baraub Paraub Paraub Paraub Paraub Paraub Paraub Paraub Paraub Paraub Paraub	•
	a. Structure	39.42	phita	gap und und uoo obe	
	b. Finish	43-46	a. Fire resistance		11.73
(3. ACGUSTICS*	JC	b. Flame spread		74.76 77,78/BK
0	TO DE TO DE TO TO THE TOP IN THE	•	c. Smake developed		79, 80/08
	рания ролям ролям рания		u. VVIII CBEING &CCOMMONBIE & Sprinklet System.	ikref systam; wws Li no	8
	ाबस्य ००० वर्ष	9	Performance ratings and tests are explained on the instruction sheet.	explained on the instruction sheet.	
	a. Certing floor b. Celling reof	50-52			
	LIGHTING				
					71
	6. GENERAL INFORMATION (Check all that apply.)		7. LIGHTING LEVELS		
	a. Incandescent	<u> </u>	Enter the number of section of the s	Enter the number of 40 wait fluoresizing tubes	F
(b. Fluorescent	01	+-	mining mounter (Sec. 4 dooye).	14, 15
0	c. Luminous ceiling	-			16,17
	d. Exterior lighting	12	c. 200 f.c.		18, 19
	e. Safety lighting (fire, ext)	133			Z MAC
			ro	a-10	CERL FC

LIGHTING/CEILING	C				OMB 49-R0412	OFFICE USE ONLY Question No.	204		
1. SUBSYSTEM NAME/MODEL			× 1		O'				
2. GENERAL INFORMATION			4. COM	4. COMPATIBILITY .		A compatible interface between two subsystems must not require on-site modification	interfac ms must ication	e between not rec	luire luire
a. Assembly type: Yes No	Optional	49		Identify products with which your lighting/ceiling system is compatible			usly ogether be		etec ytilidite
Coffer (3-D)	T	S 50		name of manufacturer	product name/model			Detaile sqmoo Anticip	cowbs
		28						_	
b. Accommodation of the partition subsystem: (check one)			Structure				-	-	
On planning module line only	T	8	_				\vdash	+	T
c. Air handling accommodations:	Optional						-	-	T
Air bar	T	X 18	HVAC				+	-	T
Air handling fixture		88					-	+	T
		23					+	-	T
			Partitions				-	+	T
3. SUBSYSTEM IMPLEMENTATION								-	T
1910):	10							-	_
responsibilities of the participants for the participants for a typical project	ontract		Electric/ Electronic						
0 A	_	29							
a. Prepare layouts	F	64-67							1
C. Purchase	H	68-72							
d. Site assembly & installation		73.76		11-6					
		J.7.78/8K		3					
•		14 DUP							

	ELECTRIC/ELECTRONIC	C			OMB 49-RO412	OFFICE USE ONLY Question No.	204	•
	1. SUBSYSTEM NAME/MODEL				04			
	2. GENERAL INFORMATION	4	4. PLANNING CRITERIA					
	Functional systems which have been included in your electric electrons subsystems. Yes No Opn Audio communications	M/A/A	What must an architect/engineer know about your subsystem to accommodate it in his building design?	bout your subsystem t	o accommodate it i	n his		
	Clock Closed circuit TV	9 ~ 0						111
	TV antenna.	» o						11
	Security PAX emergency telephones	9 =						
	Dial access programs Power distribution. Others	55 E	5. COMPATIBILITY			A compatible interface between two subsystems must not require on-site modification.	lerface bet must not r site modifi	ween equire cation.
	For subsystems with relocatable service columns, who can move the units? (Check all that apply.) Manufacturer's personnel	£ ;	Identify products with which your electric/electronic system is compatible	your compatible		Aįs		916 Villidi
	Licensed electricians. Owner's maint, staff.	2 4	name of manufacturer		product name/model	Previou Previou	Detailed Compar	Anticipa tegrnoo
	3. SUBSYSTEM IMPLEMENTATION	Lighting/ Ceiling	o.					
	ifacturer Mir. ractor					\dagger		
_	B-A B-A Bans Bans Bans	Partitions	tions				\prod	$\overline{\Box}$
	a. Presare ayous b. Manufacture/fabricate	24.71						$\overline{1}$
	c. Purchase d. Site assemby & installation	33.38		a-12				
		79,80/11						

manufacturers of structural subsystems

NOTE: Listing of nonrespondent manufacturers or those with insufficient data to be included in this edition.

Airfloor Co. of California, Inc. Santa Fe Springs, CA 906070 13729 E. Rosecrans Avenue

Algoma Steel Corp. Ltd. Sault Ste. Marie Ontario, Canada Arizona Prestress Concrete Co. 2629 S. 21st Street Phoenix, AZ 85036 P.O. Box 20685

Bethlehem, PA 18016 Bethlehem Steel Corp. 701 E. Third St.

61068 Blakeslee Midwest Rochelle, IL P.O. Box 460 111 5th Ave.

Bock Industries, Inc. 2704 S. Nappanee St. Elkhart, IN 46514 Butler Manufacturing Co. Kansas City, MO 64141 P.O. Box 917

Address not known Componoform, Inc.

Montreal 101, Quebec, Canada Dominion Bridge Co. Limited P.O. Box 280

Eastern Prestressed Concrete Corp.

3030 Unionville Road . Hatfield, PA 19440

Federal Cement Products, Inc. Hammond, IN 46320 24 Marble St.

Montreal 405, Quebec, Canada C.P. 2000 Rosemont Francon Limitee

33733 St. Petersburg, FL Gulf Steel 4156 Park

49418 3443 Chicago Drive, S. W. Haven-Busch Company Grandville, MI International Steel Fabricators, Inc. 77040 TX P.O. Box 40446 Houston,

L. L. Le Jeune Co., Inc. Z Minneapolis, 118 W. 60th

Metal Deck Division Eleven Talbot Ave. Rankin, PA 15104 Epic Metals Corp.

Midwest Lumber & Millwork IA 9945 Hickman DesMoines,

O'Malley Lumber Co.

5307 W. Missouri Glendale, AZ

44595 Republic Steel Corp. 1315 Albert Street ОН Youngstown,

44004 Sanford Truss, Inc. Ashtabula, OH P.O. Box 2986 R. W. Sidley

33061 951 South West 12th Ave. FL 217 West Rice Street Pompano Beach, P.O. Box 1177 Continental, SoCar Inc.

San Francisco, CA 1750 Army Street Soule Steel Co. P.O. Box 3510 Rincon Annex

TXI Structural Products Inc. Span Industries IX P.O. Box 400 Arlington,

21777 Standard Building Systems Point of Rocks, MD U.S. Route 15

manufacturers of structural subsystems

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Star Manufacturing Co. 8000 S. Interstate P.O. Box 94910 Oklahoma City, OK 73109

Steel Fabricators Co. 1252 J. Spruce Street Cleveland, OH 44113 Stresscon Industries, Inc. 3501 Sinclair Lane Baltimore, MD 21213 Syncon 1717 South 12th St. Milwaukee, WI 53204

interior partitions subsystems 9 manufacturers

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Kaiser Gypsum Company, Inc. Kaiser Center	300 Lakeside Drive Oakland, CA 94604	•	Keene Corporation	27 Interior Systems Division Route 206 Center	Princeton, NJ 08540		Malone Products Corporation	Address not known		MARLITE	Division of Masonite Corp.	Dover, OH 44622	Masonite Corporation
The E. F. Hauserman Company 5711 Grant Avenue	Cleveland, OH 44105	EMCO, Inc.	1400 Spruce	Kansas City, MO 64127	Fairhurst Industries, Inc.	117 Gazza Blvd.	Farmingdale, NY 11735		Gold Bond Bldg. Prod.	National Gypsum Company	325 Delaware Avenue	Buffalo, NY 14202	H & B Enterprise Corp.
Acousti Engineering Co. of Florida P.O. Box 2147	Jacksonville, FL 32201	American Sanitary Partition Corp.		Long Island City, NY 11101	Anning-Johnson Company	3000 North 29th Street	Hollywood, FL 33020		Arizona Prestress Concrete Co.	P.O. Box 20685	2629 S. 21st Street	Phoenix, AZ 85036	Bellaire Products Inc.

44105	300 Lakeside Drive Oakland, CA 94604
64127	Keene Corporation Interior Systems Division
ies, Inc.	Princeton, NJ 08540
11735	Malone Products Corporation Address not known
rod.	MARLITE
nue 14202	Division of Masonite Corp. Dover, OH 44622

08540

Trenton, NJ 08602	
	The Mills C
Haws Operable Walls Inc.	965 Wayside
12955 Inkster Road	Cleveland,
Detroit, MI 48239	
	Milwaukee M
HOFCOR	800 S. 72nd
Div. of Hough Manufacturing Co.	Co. Milwaukee,
Janesville, WI 53545	
	Modernfold

89019

1

Rochelle,

2605 East Kilgore Road

Kalamazoo,

Brunswick Corporation

Curtis Partition Corp.

590 Belleville Tpke. Kearny, NJ 07032

Kearny, NJ

Lwaukee Metal Stamping Corp.

S. 72nd Street

44110

Mills Company, Inc.

Wayside Road veland, OH

29 North Wacker Drive

H

Chicago,

1150 Southard Street

33588

FL

Tallevast,

Drawer C

Blakeslee Midwest

P.O. Box 460 111 5th Ave.

P.0. Box 307

53214

M

10	, IN 47362		National Folding Wall Corp.	74
P.O. Box 310	New Castle,		. National F	P.0. Box 1
.o., Inc.			46206	
Mfg. (Street		NI	
Holcomb & Hoke Mfg. Co., Inc.	1545 Calhoun Street	P.0. Box 1965	Indianapolis,	

Don Myers and Associates, Inc.

3256 N.W. 24th Street Road

Miami,

08857

N

Old Bridge,

b-4

interior partitions subsystems 9 manufacturers

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New Castle Products, Inc. New Carlisle, IN

Div. of Gray Manufacturing Co. Orange, 46552

O'Malley Lumber Co. 5307 W. Missouri

55343 M W. E. Neal Slate Co. 7975 Wallace Road Eden Prairie,

> 85301 10700 Northwest 36th Ave. 33167 Miami, FL Glendale, Panelfold

Westinghouse Electric Corp.

49508 36th Street, S.E. Arch. Systems Dept. Grand Rapids, MI 4300

Wimer-Stubbs Associates, Inc. Address not known

94086

814 San Alesco Ave.

Sunnyvale,

Papsco, Inc.

84119 Won-Door Corporation Salt Lake City, UT 3215 S. 8th West

Workwall Moveable Partitions Division of The Marmon Gp. P.O. Box 130 Bronson,

60009

Building Products Department

1430 E. Davis St.

Tenneco Chemicals, Inc.

9325 Snowden River Pkwy.

Roper Eastern

21046

Columbia, MD

Arlington Heights, IL Brooklyn, NY 11232 209-25th Street Torjensen Inc.

Division of U.S.Plywood-United States Plywood Champion Papers, Inc. 10017 777 Third Ave. New York, NY The Vecta Group Inc. 2605 E. Kilgore Rd. M Kalamazoo,

manufacturers of heating, ventilating, and cooling subsystems

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Acme Industries, Inc. 600 North Mechanic Street Jackson, MI 49202 American-Standard P.O. Box 2003 New Brunswick, NJ 08903 Barber-Colman Co.
Environmental Systems Division 1300 Rock St.
Rockford, IL 64101

Blakeslee Midwest P.O. Box 460 111 5th Ave. Rochelle, IL 61068

Bryant A. C. Co. 7310 W. Morris Street Indianapolis, IN 46231 Chromolox Comfort Conditioning Div. Emerson Electric Co. 8100 W. Florissant Ave. St. Louis, MO 63136

Day & Night Mfg. Co. 855 Anaheim-Puente Road City of Industry, CA 91747 Fedders Corporation Central Air Conditioning & Heating Edison, NJ 08817

General Electric Central Air Cond. Product Dept. Appliance Park Louisville, KY 40225

H. K. Porter Company, Inc. Electrical Division Porter Building Pittsburgh, PA 15219 ITT Environmental Products Div. State Road and Rhawn Street Philadelphia, PA 193

L. S. Pawkett & Co. P.O. Box 12077 San Antonio, TX 78212 Mammoth Division Lear Siegler, Inc. 13120-B Country Road 6 Minneapolis, MN Modine Manufacturing Co. Holland, OH 43528 Mueller Climatrol Corp. Milwaukee, WI 5321

RAYWALL
Division of Tennessee Plastics, Inc.
P.O. Box T, Carroll Reece Branch
g Johnson City, TN 37601

Schemenauer Mfg. Co. Holland, OH 43528

Singer Co.
Climate Control Products

Climate Control Froduce 62 Columbus St. Auburn, NY 1303 The Coleman Co. Mobile Home Division Wichita, KS 67201 Westinghouse Electric Corp. Air Conditioning Division P.O. Box 510 Staunton, VA 24401

Worthington Air Cond. Co. East Orange, NJ 0701

Wright Air Conditioning 8539 Troost Kansas City, MO 64131

lighting/ceiling subsystems of manufacturers

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Alcan Bldg. Prod. Jacobus Avenue S. Kearny, NJ 07032

Alpro Acoustics Div. of Struct. Sys. Corp. P.O. Box 30460 New Orleans, LA 70190 Anning-Johnson Company 1959 Anson Dr. Melrose Park, IL 60160

Anning-Johnson Company 3000 North 29th Court Hollywood, FL 33020 Butler Manufacturing Company P.O. Box 917 Kansas City, MO 64141

Canadian Johns-Manville 565 Lakeshore Road, E. Port Credit, Ontario Canada Ceiling Dynamics, Inc. 1845 Belcroft South El Monte, CA

Conwed Corporation 2200 Highcrest Road St. Paul, MN 55101

The E. F. Hauserman Co. 5711 Grant Avenue Cleveland, OH 44105

Hastings Aluminum Products
National Aluminum, a Unit of
National Steel Corporation
Hastings, MI 49058

Howmet Corporation Southern Extrusions Division P.O. Box 40 Magnolia, AR 71753

Inland-Ryerson Construction Product Co. P.O. Box 393 Milwaukee, WI 5320 K. E. Gordon Manufacturing, Inc. Slack Industrial Park P.O. Box 60051 . Keene Corporation Interior Products & Systems Div. U.S. 1 (Princeton Commerce Center) Princeton, NJ 08540

Lightron of Cornwall .
Cornwall-On-Hudson, NY 12520
Limelight Systems, Inc.

590 Southwest Twelfth Avenue

Pompano Beach,

Litecraft/Luminous Ceilings P.O. Box 22601 1500 N. Dale Mabry Highway, Tampa, FL 33622

Luminous Ceilings, Inc. Address not known National Ceiling Systems Corp. 6643 West Howard St. Niles, IL 60648 Owens-Corning Fiberglas Corp.
Interior Products & Systems Div.
Fiberglas Tower
Toledo, OH 43659

Simplex Ceiling Corp. 663 Fifth Avenue New York, NY 10022 Simpson Timber Company 2000 Washington Bldg. Seattle, WA 9810 United States Gypsum Co. 101 South Wacker Drive Chicago, IL 60606 Westinghouse Electric Corp. P.O. Box 4808 Atlanta, GA 30302

W. J. Haertel
Division of Leslie-Locke Building
Products Co.
11550 West King Street
Franklin Park, IL 60131

manufacturers of electric/electronic distribution subsystems

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Low Voltage Distribution Equipment American Modular Systems Design, Inc. Westinghouse Electric Corp. Address not known

Division

Arizona Prestress Concrete Co. 1565 S. Vandeventer Ave.

St. Louis, MO 63110

P.O. Box 20685

2629 S. 21st Street Phoenix, AZ 85036 Bedard-Girard Ltd.

Bedard-Girard Ltd. 117 Lagauchetiere Street West Montreal, Quebec, Canada

Blakeslee Midwest
P.O. Box 460
111 5th Ave.
Rochelle, IL 61068

Electro-Line, Inc. 118 S. Terry Street Dayton, OH 45403 Electro-Link Systems, Ltd. Address not known Incor Instrumentation, Inc. 29 Newton Road Planville, NY 11803

Industrial Electronics Inc. 1275 Bloomfield Avenue Fairfield, NJ 07006

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